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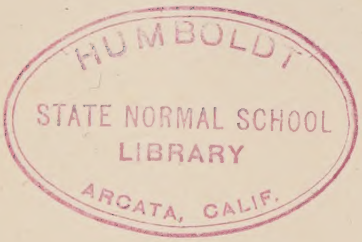

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NATIONAL EDUCATION ASSOCIATION

Journal

OF

Proceedings and Addresses

OF THE

FORTY-FIFTH ANNUAL MEETING

HELD AT

LOS ANGELES, CALIFORNIA

JULY 8-12

1907

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THE NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

1857–1870

THE NATIONAL TEACHERS' ASSOCIATION

Organized August 26, 1857, at Philadelphia, Pennsylvania.

PURPOSE—To elevate the character and advance the interests of the profession of teaching, and to promote the cause of popular education in the United States.

The name of the association was changed at Cleveland, Ohio, on August 15, 1870, to the "National Educational Association."

1870–1907

NATIONAL EDUCATIONAL ASSOCIATION

Incorporated under the laws of the District of Columbia, February 24, 1886, under the name, "National Education Association," which was changed to "National Educational Association," by certificate filed November 6, 1886.

1907–

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

Incorporated under a special act of Congress, approved June 30, 1906, to succeed the "National Educational Association." The charter was accepted and by-laws were adopted at the Fiftieth Anniversary Convention held July 10, 1907, at Los Angeles, California.

AN ACT TO INCORPORATE THE NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

SECTION 1. That the following named persons, who are now the officers and directors and trustees of the National Educational Association a corporation organized in the year eighteen hundred and eighty-six, under the Act of General Incorporation of the Revised Statutes of the District of Columbia, viz.: Nathan C. Schaeffer, Eliphalet Oram Lyte, John W. Lansinger, of Pennsylvania; Isaac W. Hill, of Alabama; Arthur J. Matthews, of Arizona; John H. Hinemon, George B. Cook, of Arkansas; Joseph O'Connor, Josiah L. Pickard, Arthur H. Chamberlain, of California; Aaron Gove, Ezekiel H. Cook, Lewis C. Greenlee, of Colorado; Charles H. Keyes, of Connecticut; George W. Twitmyer, of Delaware; J. Ormond Wilson, William T. Harris, Alexander T. Stuart, of the District of Columbia; Clem Hampton, of Florida; William M. Slaton, of Georgia; Frances Mann, of Idaho; J. Stanley Brown, *Albert G. Lane, Charles I. Parker, John W. Cook, Joshua Pike, Albert R. Taylor, Joseph A. Mercer, of Illinois; Nebraska Cropsey, Thomas A. Mott, of Indiana; John D. Benedict, of Indian Territory; John F. Riggs, Ashley V.

*Deceased.

Storm, of Iowa; John W. Spindler, Jasper N. Wilkinson, A. V. Jewett, Luther D. Whittemore, of Kansas; William Henry Bartholomew, of Kentucky; Warren Easton, of Louisiana; *John S. Locke, of Maine; M. Bates Stephens, of Maryland; Charles W. Eliot, *Mary H. Hunt, Henry T. Bailey, of Massachusetts; Hugh A. Graham, Charles G. White, William H. Elson, of Michigan; *William F. Phelps, Irwin Shepard, John A. Cranston, of Minnesota; Robert B. Fulton, of Mississippi; F. Louis Soldan, James M. Greenwood, William J. Hawkins, of Missouri; Oscar J. Craig, of Montana; George L. Towne, of Nebraska; Joseph E. Stubbs, of Nevada; James E. Klock, of New Hampshire; James M. Green, John Enright, of New Jersey; Charles M. Light, of New Mexico; James H. Canfield, Nicholas Murray Butler, William H. Maxwell, Charles R. Skinner, *Albert P. Marble, James C. Byrnes, of New York; James Y. Joyner, Julius Isaac Foust, of North Carolina; Pitt Gordon Knowlton, of North Dakota; Oscar T. Corson, Jacob A. Shawan, Wells L. Griswold, of Ohio; Edgar S. Vaught, Andrew R. Hickham, of Oklahoma; Charles Carroll Stratton, Edwin D. Ressler, of Oregon; Thomas W. Bicknell, Walter Ballou Jacobs, of Rhode Island; David B. Johnson, Robert P. Pell, of South Carolina; Moritz Adelbert Lange, of South Dakota; Eugene F. Turner, of Tennessee; Lloyd E. Wolfe, of Texas; David H. Christensen, of Utah; Henry O. Wheeler, Isaac Thomas, of Vermont; Joseph L. Jarman, of Virginia; Edward T. Mathes, of Washington; T. Marcellus Marshall, Lucy Robinson, of West Virginia; Lorenzo D. Harvey, of Wisconsin; Thomas T. Tynan, of Wyoming, Cassia Patton, of Alaska; Frank H. Ball, of Porto Rico; Arthur F. Griffiths, of Hawaii; C. H. Maxson, of the Philippine Islands, and such other persons as now are or may hereafter be associated with them as officers or members of said Association, are hereby incorporated and declared to be a body corporate of the District of Columbia by the name of the "National Education Association of the United States," and by that name shall be known and have perpetual succession with the powers, limitations, and restrictions herein contained.

SEC. 2. That the purpose and object of the said corporation shall be to elevate the character and advance the interests of the profession of teaching, and to promote the cause of education in the United States. This corporation shall include the National Council of Education and the following departments, and such others as may hereafter be created by organization or consolidation, to wit: the Departments, first, of Superintendence; second, of Normal Schools; third, of Elementary Education; fourth, of Higher Education; fifth, of Manual Training; sixth, of Art Education; seventh, of Kindergarten Education; eighth, of Music Education; ninth, of Secondary Education; tenth, of Business Education; eleventh, of Child-Study; twelfth, of Physical Education; thirteenth, of Natural Science Instruction; fourteenth, of School Administration; fifteenth, the Library Department; sixteenth, of Special Education; seventeenth, of Indian Education; the powers and duties and the number and names of these departments and of the National Council of Education may be changed or abolished at the pleasure of the corporation, as provided in its By-Laws.

SEC. 3. That the said corporation shall further have power to have and to use a common seal, and to alter and change the same at its pleasure; to sue or to be sued in any court of the United States, or other court of competent jurisdiction; to make by-laws not inconsistent with the provisions of this act or of the constitution of the United States; to take or receive, whether by gift, grant, devise, bequest, or purchase, any real or personal estate, and to hold, grant, convey, hire, or lease the same for the purposes of its incorporation; and to accept and administer any trust of real or personal estate for any educational purpose within the objects of the corporation.

SEC. 4. That all real property of the corporation within the District of Columbia, which shall be used by the corporation for the educational or other purposes of the corporation as aforesaid, other than the purposes of producing income, and all personal property and funds of the corporation held, used, or invested for educational purposes aforesaid, or to produce income to be used for such purposes, shall be exempt from taxation;

*Deceased.

provided, however, that this exemption shall not apply to any property of the corporation which shall not be used for, or the income of which shall not be applied to, the educational purposes of the corporation; and, *provided further*, that the corporation shall annually file, with the Commissioner of Education of the United States, a report in writing, stating in detail the property, real and personal, held by the corporation, and the expenditure or other use or disposition of the same, or the income thereof, during the preceding year.

SEC. 5. That the membership of the said corporation shall consist of three classes of members—viz., active, associate, and corresponding—whose qualifications, terms of membership, rights, and obligations shall be prescribed by the By-Laws of the corporation.

SEC. 6. That the officers of the said corporation shall be a President, twelve Vice-Presidents, a Secretary, a Treasurer, a Board of Directors, an Executive Committee, and a Board of Trustees.

The Board of Directors shall consist of a President, the First Vice-President, the Secretary, the Treasurer, the chairman of the Board of Trustees, and one additional member from each state, territory, or district, to be elected by the active members for the term of one year, or until their successors are chosen, and of all life directors of the National Educational Association. The United States Commissioner of Education, and all former Presidents of the said Association now living, and all future Presidents of the Association hereby incorporated, at the close of their respective terms of office, shall be members of the Board of Directors for life. The Board of Directors shall have power to fill all vacancies in their own body; shall have in charge the general interests of the corporation, excepting those herein intrusted to the Board of Trustees; and shall possess such other powers as shall be conferred upon them by the By-Laws of the corporation.

The Executive Committee shall consist of five members, as follows: the President of the Association, the First Vice-President, the Treasurer, the Chairman of the Board of Trustees, and a member of the Association, to be chosen annually by the Board of Directors, to serve one year. The said committee shall have authority to represent, and to act for, the Board of Directors in the intervals between the meetings of that body, to the extent of carrying out the legislation adopted by the Board of Directors under general directions as may be given by said board.

The Board of Trustees shall consist of four members, elected by the Board of Directors for the term of four years, and the President of the Association, who shall be a member *ex officio*, during his term of office. At the first meeting of the Board of Directors, held during the annual meeting of the Association at which they were elected, they shall elect one trustee for the term of four years. All vacancies occurring in said Board of Trustees, whether by resignation or otherwise, shall be filled by the Board of Directors for the unexpired term; and the absence of a trustee from two successive annual meetings of the board shall forfeit his membership.

SEC. 7. That the invested fund now known as the "Permanent Fund of the National Educational Association," when transferred to the corporation hereby created, shall be held by such corporation as a Permanent Fund and shall be in charge of the Board of Trustees, who shall provide for the safe keeping and investment of such fund, and of all other funds which the corporation may receive by donation, bequest, or devise. No part of the principal of such Permanent Fund or its accretions shall be expended, except by a two-thirds vote of the active members of the Association present at any annual meeting, upon the recommendation of the Board of Trustees, after such recommendation has been approved by vote of the Board of Directors, and after printed notice of the proposed expenditure has been mailed to all active members of the Association. The income of the Permanent Fund shall be used only to meet the cost of maintaining the organization of the Association and of publishing its annual volume of *Proceedings*, unless the terms of the donation, bequest, or devise shall otherwise specify, or the Board of Directors shall otherwise order. It shall also be the duty of the Board of Trustees to issue orders on the Treasurer for the payment of all bills approved by the Board of Directors, or by the President and Secretary of the

Association acting under the authority of the Board of Directors. When practicable, the Board of Trustees shall invest, as part of the Permanent Fund, all surplus funds exceeding five hundred dollars that shall remain in the hands of the Treasurer after paying the expenses of the Association for the previous year, and providing for the fixed expenses and for all appropriations made by the Board of Directors for the ensuing year.

The Board of Trustees shall elect the Secretary of the Association, who shall also be secretary of the Executive Committee, and shall fix the compensation and the term of his office for a period not to exceed four years.

SEC. 8. That the principal office of the said corporation shall be in the city of Washington, District of Columbia, provided that the meetings of the corporation, its officers, committees, and departments, may be held, and that its business may be transacted, and an office or offices may be maintained, elsewhere, within the United States, as may be determined, by the Board of Directors, or otherwise in accordance with the By-Laws.

SEC. 9. That the Charter, Constitution, and By-Laws of the National Educational Association shall continue in full force and effect until the charter granted by this act shall be accepted by such Association at the next annual meeting of the Association, and until new By-Laws shall be adopted; and that the present officers, directors, and trustees of said Association shall continue to hold office and perform their respective duties as such, until the expiration of the terms for which they were severally elected or appointed, and until their successors are elected. That at such annual meeting the active members of the National Educational Association, then present, may organize and proceed to accept the charter granted by this Act and adopt By-Laws, to elect officers to succeed those whose terms have expired or are about to expire, and generally to organize the "National Education Association of the United States;" and that the Board of Trustees of the corporation hereby incorporated shall thereupon, if the charter granted by this act be accepted, receive, take over, and enter into possession, custody, and management of all property, real and personal, of the corporation heretofore known as the National Educational Association, incorporated as aforesaid, under the Revised Statutes of the District of Columbia and all its rights, contracts, claims, and property of every kind and nature whatsoever; and the several officers, directors, and trustees of such last-named Association, or any other person having charge of any of the securities, funds, books, or property thereof, real or personal, shall on demand deliver the same to the proper officers, directors, or trustees of the corporation hereby created. *Provided*, That a verified certificate executed by the presiding officer and secretary of such annual meeting, showing the acceptance of the charter granted by this act by the National Educational Association shall be legal evidence of the fact, when filed with the recorder of deeds of the District of Columbia; and, *provided further*, That in the event of the failure of the Association to accept the charter granted by this act at said annual meeting, then the charter of the National Educational Association and its corporate existence shall be, and are hereby extended until the thirty-first day of July, nineteen hundred and eight, and at any time before said date its charter may be extended in the manner and form provided by the general corporation law of the District of Columbia.

SEC. 10. That the rights of creditors of the said existing corporation, known as the National Educational Association, shall not in any manner be impaired by the passage of this act, or the transfer of the property heretofore mentioned, nor shall any liability or obligation, or the payment of any sum due or to become due, or any claim or demand, in any manner, or for any cause existing against the said existing corporation, be released or impaired; and the corporation hereby incorporated is declared to succeed to the obligations and liabilities, and to be held liable to pay and discharge all of the debts, liabilities, and contracts, of the said corporation so existing, to the same effect as if such new corporation had itself incurred the obligation or liability to pay such debt or damages, and no action or proceeding before any court or tribunal shall be deemed to have abated or been discontinued by reason of this act.

SEC. 11. That Congress may from time to time alter, repeal, or modify this act of incorporation, but no contract or individual right made or acquired shall thereby be divested or impaired.

Approved June 30, 1906.

Accepted and adopted as the Constitution of the National Education Association of the United States by the active members of the National Educational Association in annual session at Los Angeles, Cal., July 10, 1907.

BY-LAWS

(Adopted at meeting of active members held in Los Angeles, Cal., July 10, 1907.)

ARTICLE I—MEMBERSHIP

ACTIVE MEMBERS

SECTION 1. Teachers and all who are actively associated with the management of educational institutions, including libraries and educational publications, may become active members.

SEC. 2. Any eligible person may become an active member upon application indorsed by two active members, and the payment of an enrollment fee of two dollars and the annual dues for the current year.

SEC. 3. Active members only shall have the right to vote and to hold office in the Association, in the National Council of Education, or in the several departments.

SEC. 4. All active members shall pay annual dues of two dollars, and shall be entitled to the volume of *Proceedings* without "coupon" or other conditions.

SEC. 5. The annual membership fee shall be payable at the time of the annual convention, or by remittance to the Secretary before September first of each year.

SEC. 6. Any active member many discontinue membership by giving written notice to the Secretary before September first in any year, and may restore the same only on payment of the enrollment fee of two dollars and the annual dues for the current year. A written application for active membership shall constitute an agreement to continue such membership and pay annual dues, unless written notice of discontinuance is sent to the Secretary before September first of the fiscal year for which such discontinuance shall apply.

CORRESPONDING MEMBERS

SEC. 7. Eminent educators not residing in America may be elected by the Board of Directors to be corresponding members. The number of corresponding members shall at no time exceed fifty.

SEC. 8. Corresponding members shall be entitled to the volume of *Proceedings* without the payment of fees or other conditions.

ASSOCIATE MEMBERS

SEC. 9. Any person on paying an annual membership fee of two dollars may become an associate member.

SEC. 10. Associate members may receive the volume of *Proceedings* in accordance with the usual "coupon" conditions, as printed on the membership certificate.

LIFE MEMBERS

SEC. 11. All life members and life directors shall be denominated active members and shall enjoy all the powers and privileges of such members without the payment of annual dues.

ROLL OF MEMBERS

SEC. 12. The names of active, life, and corresponding members only shall be printed in the annual *Yearbook*, with their respective educational titles, offices, and addresses and the list shall be revised annually by the Secretary of the Association.

ARTICLE II—OFFICERS AND COMMITTEES

SECTION 1. The President, Vice-Presidents, Directors, and Treasurer shall be chosen by the active members of the Association by ballot, unless otherwise ordered, on the third day of each annual session, a majority of the votes cast being necessary to a choice. They shall continue in office until the close of the annual session subsequent to their election and until their successors are chosen, except as hereinafter provided.

COMMITTEE ON RESOLUTIONS

SEC. 2. At the first session of each annual meeting of the Association the President shall appoint a Committee on Resolutions.

COMMITTEE ON NOMINATIONS

SEC. 3. At the third session of each annual meeting of the Association there shall be appointed by the President a Committee on Nominations, consisting of one member from each state and territory represented. Such a committee shall be appointed by the President on the nomination of a majority of the active members from such state or territory present at the meeting called for the purpose of making such nomination; *provided*, however, that such appointment shall be made by the President without such nomination, when the active members in attendance from any state or territory shall fail to make a nomination.

SEC. 4. The meetings of the active members of the several states to nominate members of the nominating committee shall be held at 5:30 P. M. on the first day of the annual meeting of the Association, at such places as shall be announced in the general program.

ARTICLE III—DUTIES OF OFFICERS

THE PRESIDENT

SECTION 1. The President shall preside at all meetings of the Association and of the Board of Directors, and shall perform the duties usually devolving upon a presiding officer. In his absence the first Vice-President in order, who is present, shall preside; and in the absence of all the Vice-Presidents, a *pro tempore* chairman shall be appointed on nomination, the Secretary putting the question.

THE SECRETARY

SEC. 2. The Secretary shall keep a full and accurate report of the proceedings of the general meetings of the Association and of all meetings of the Board of Directors, and shall conduct such correspondence and transact such other business of the Association as the directors or Executive Committee may assign, and shall have his records present at all meetings of the Association and the Board of Directors.

THE TREASURER

SEC. 3. The Treasurer shall receive, and under the direction of the Board of Trustees hold in safekeeping, the current income of the Association; shall expend the same only upon order of said board; shall keep an exact account of his receipts and expenditures, with vouchers for the latter; which accounts, ending the first day of July in each year, he shall render to the Board of Trustees and, when approved by said board, he shall report to the Board of Directors. The Treasurer shall give such bond for the faithful discharge of his duties as may be required by the Board of Trustees; and he shall continue in office until the first meeting of the Board of Directors held prior to the annual meeting of the Association next succeeding that at which he is elected, and until his successor has been elected and has qualified.

AUDITOR OF ACCOUNTS

SEC. 4. It shall be the duty of the President, Secretary, and Treasurer of the Association to appoint annually some competent person to examine the securities of the Permanent Fund held by the Board of Trustees, and his certificate, showing the condition of the said fund, shall be attached to the annual report of the Board of Trustees.

CERTIFICATION OF BILLS

SEC. 5. The President and Secretary shall certify to the Board of Trustees all bills approved by the Board of Directors.

ARTICLE IV—THE BOARD OF DIRECTORS

SECTION 1. The Board of Directors shall hold its regular annual meeting at the place of the annual convention, and not less than two hours before the assembling of the Association.

SEC. 2. Special meetings may be held at such other times and places as the board or the President shall determine.

SEC. 3. Each new board shall organize at the session of its election.

ARTICLE V—THE NATIONAL COUNCIL OF EDUCATION

OBJECTS AND DUTIES

SECTION 1. The National Council of Education shall have for its object the consideration and discussion of educational questions of public and professional interest; the proposal to the Board of Directors, from time to time, of suitable subjects for investigation and research, and the recommendation of the amount of appropriations that should be made for such purposes; the appointment and general supervision of such special committees of investigation and research as may be provided for and authorized by the Board of Directors of the Association; the consideration, discussion, and recommendation to the Board of Directors for disposition of all reports by such special committees of research as may have been appointed on its recommendation or by its authority; the annual preparation and presentation to the Association at its annual convention of a report on "Educational Progress during the Past Year;" and in other ways shall use its best efforts to further the objects of the Association and to promote the cause of education in general.

MEMBERSHIP OF THE COUNCIL

SEC. 2. The Council shall consist of sixty members, selected from the membership of the Association. Any member of the Association identified with educational work is eligible to membership in the Council.

SEC. 3. The Board of Directors shall annually elect five members, and the Council shall elect five members, each member to serve for six years, or until his successor is elected.

SEC. 4. The annual election of members of the Council shall be held in connection with the annual meetings of the Association. If the Board of Directors shall fail, for any reason, to fill its quota of members annually, the vacancy or vacancies shall be filled by the Council.

SEC. 5. The absence of a member from two consecutive annual meetings of the Council shall be considered equivalent to resignation of membership, and the Council shall fill vacancies caused by absence from the Council as herein defined, as well as vacancies caused by death or resignation, for the unexpired term. All persons who have belonged to the Council shall, on the expiration of their membership, become honorary members, with the privilege of attending its regular sessions and participating in its discussions. No state shall be represented in the Council by more than eight members.

BY-LAWS OF THE COUNCIL

SEC. 6. The Council may establish by-laws for its government not inconsistent with the Act of Incorporation or of the By-Laws of the Association, provided such by-laws shall be submitted to and approved by the Board of Directors of the Association before they shall become operative.

ARTICLE VI—DEPARTMENTS

SECTION 1. A department shall consist of those members of the Association who are especially interested in the consideration of a particular group of educational problems.

Each department shall be administered by a president, vice-president, secretary, and such other officers as it shall deem necessary to conduct its affairs.

SEC. 2. Each department shall hold its annual meeting at the time of the annual convention of the Association, except the Department of Superintendence, which may hold its annual meeting in February of each year, or at such other time as may be determined by the officers of said department.

SEC. 3. The objects of the annual department meetings shall be the discussion of questions pertaining to their respective fields of educational work. The programs of these meetings shall be organized and conducted by the respective presidents, in conference with, and under the general direction of, the President of the Association. Each department shall be limited to two sessions, with formal programs, at the time of the annual convention, except that a third session for business or informal round-table conference may be held at the discretion of the department officers.

SEC. 4. Upon the written request of twenty active members of the Association for permission to establish a new department, the Board of Directors may grant such permission. Such new department shall in all respects be entitled to the same rights and privileges as the departments named in the Act of Incorporation.

ARTICLE VII—MEETINGS

SECTION 1. The annual meeting of the Association shall be held at such time and place as shall be determined by the Board of Directors.

SEC. 2. Special meetings may be called by the President at the request of five directors.

SEC. 3. Any department of the Association may hold a special meeting at such time and place as by its own regulations it shall appoint.

SEC. 4. No paper, lecture, or address shall be read before the Association or any of its departments, in the absence of its author, nor shall any such paper, lecture, or address be published in the volume of *Proceedings*, without the consent of the Association, upon the approval of the Executive Committee.

ARTICLE VIII—AMENDMENTS

SECTION 1. These by-laws may be altered or amended at any annual meeting by the unanimous vote of the members present; or by a two-thirds vote of the members present, provided that the substance of the alteration or amendment has been proposed in writing at a previous annual meeting.

NATIONAL EDUCATIONAL ASSOCIATION

NOW KNOWN AS THE

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

CERTIFICATE

of Acceptance of Charter and Adoption of By-Laws under Act of Congress approved June 30, 1906.

We, the undersigned, Nathan C. Schaeffer, the presiding officer, and Irwin Shepard, the secretary of the meeting of the National Educational Association held at Los Angeles, California, on the 10th day of July, 1907, said meeting being the annual meeting of the Association held next after the passage of an Act of Congress entitled "An Act to Incorporate the National Education Association of the United States;"

Do hereby certify, that at said meeting held pursuant to due notice, a quorum being present, the said Association adopted resolutions of which true copies are hereto attached, and accepted the Charter of the National Education Association of the United States, granted by said Act of Congress, and adopted by-laws as provided in said act and elected officers; and the undersigned pursuant to said resolutions and

Do hereby certify that the National Education Association of the United States has duly accepted said Charter granted by said Act of Congress, and adopted by-laws, and is the lawful successor to the National Educational Association.

In witness whereof, we have hereunto signed our names this 20th day of August, 1907.

(Signed) NATHAN C. SCHAEFFER, *Presiding Officer.*
(Signed) IRWIN SHEPARD, *Secretary.*

VERIFICATION

RESOLUTIONS ADOPTED BY THE ACTIVE MEMBERS, JULY 10, 1907

1. *Resolved*, That the National Educational Association hereby accepts the Charter granted by an act of Congress entitled "An Act to Incorporate the National Education Association of the United States," passed June 30, 1906, and that the President and Secretary of this meeting be authorized and directed to execute and file with the Recorder of Deeds of the District of Columbia a verified certificate showing the acceptance by the Association of the Charter granted by said act.

2. *Resolved*, That the proposed by-laws of which notice was given at the annual meeting of the Association held on July 6, 1905, which are printed in full in the journal of said meeting, be and the same are hereby adopted to take effect immediately.

3. *Resolved*, That the Association adopt as its corporate seal a circle containing the title "National Education Association of the United States," and the dates "1857–1907."

4. *Resolved*, That the Association do now proceed to elect officers, and to organize under the Charter granted by the Act of Congress.

Filed in the office of the Recorder of Deeds of the District of Columbia, September 4, 1907.

CALENDAR OF MEETINGS

NATIONAL TEACHERS ASSOCIATION

1857—PHILADELPHIA, PA. (Organized)
James L. Enos, Chairman.
W. E. Sheldon, Secretary.

1858—CINCINNATI, OHIO.
Z. Richards, President.
J. W. Bulkley, Secretary.
A. J. Rickoff, Treasurer.

1859—WASHINGTON, D. C.
A. J. Rickoff, President.
J. W. Bulkley, Secretary.
C. S. Pennell, Treasurer.

1860—BUFFALO, N. Y.
J. W. Bulkley, President.
Z. Richards, Secretary.
O. C. Wight, Treasurer.

1861, 1862—No session.

1863—CHICAGO, ILL.
John D. Philbrick, President.
James Cruikshank, Secretary.
O. C. Wight, Treasurer.

1864—OGDENSBURG, N. Y.
W. H. Wells, President.
David N. Camp, Secretary.
Z. Richards, Treasurer.

1865—HARRISBURG, PA.
S. S. Greene, President.
W. E. Sheldon, Secretary.
Z. Richards, Treasurer.

1866—INDIANAPOLIS, IND.
J. P. Wickersham, President.
S. H. White, Secretary.
S. P. Bates, Treasurer.

1867—No session.

1868—NASHVILLE, TENN.
J. M. Gregory, President.
L. Van Bokkelen, Secretary.
James Cruikshank, Treasurer.

1869—TRENTON, N. J.
L. Van Bokkelen, President.
W. E. Crosby, Secretary.
A. L. Barber, Treasurer.

1870—CLEVELAND, OHIO
Daniel B. Hagar, President.
A. P. Marble, Secretary.
W. E. Crosby, Treasurer.

NAME CHANGED TO

NATIONAL EDUCATIONAL ASSOCIATION

1871—ST. LOUIS, MO.
J. L. Pickard, President.
W. E. Crosby, Secretary.
John Hancock, Treasurer.

1872—BOSTON, MASS.
E. E. White, President
S. H. White, Secretary.
John Hancock, Treasurer.

1873—ELMIRA, N. Y.
B. G. Northrop, President.
S. H. White, Secretary.
John Hancock, Treasurer.

1874—DETROIT, MICH.
S. H. White, President.
A. P. Marble, Secretary.
John Hancock, Treasurer.

1875—MINNEAPOLIS, MINN.
W. T. Harris, President.
M. R. Abbott, Secretary.
A. P. Marble, Treasurer.

1876—BALTIMORE, MD.
W. F. Phelps, President.
W. D. Henkle, Secretary.
A. P. Marble, Treasurer.

1877—LOUISVILLE, KY.
M. A. Newell, President.
W. D. Henkle, Secretary.
J. Ormond Wilson, Treasurer.

1878—No session.

1879—PHILADELPHIA, PA.
John Hancock, President.
W. D. Henkle, Secretary.
J. Ormond Wilson, Treasurer.

1880—CHAUTAUQUA, N. Y.
J. Ormond Wilson, President.
W. D. Henkle, Secretary.
E. T. Tappen, Treasurer.

1881—ATLANTA, GA.
James H. Smart, President.
W. D. Henkle, Secretary.
E. T. Tappen, Treasurer.

1882—SARATOGA SPRINGS, N. Y.
G. J. Orr, President.
W. E. Sheldon, Secretary.
H. S. Tarbell, Treasurer.

1883—SARATOGA SPRINGS, N. Y.
E. T. Tappen, President.
W. E. Sheldon, Secretary.
N. A. Calkins, Treasurer.

1884—MADISON, WIS.
THOMAS W. BICKNELL, President.
H. S. TARBELL, Secretary.
N. A. CALKINS, Treasurer.

1885—SARATOGA SPRINGS, N. Y.
F. LOUIS SOLDAN, President
W. E. SHELDON, Secretary.
N. A. CALKINS, Treasurer.

1886—TOPEKA, KAN.
N. A. CALKINS, President.
W. E. SHELDON, Secretary.
E. C. HEWETT, Treasurer.

1887—CHICAGO, ILL.
W. E. SHELDON, President.
J. H. CANFIELD, Secretary.
E. C. HEWETT, Treasurer.

1888—SAN FRANCISCO, CAL.
AARON GOVE, President.
J. H. CANFIELD, Secretary.
E. C. HEWETT, Treasurer.

1889—NASHVILLE, TENN.
ALBERT P. MARBLE, President.
J. H. CANFIELD, Secretary.
E. C. HEWETT, Treasurer.

1890—ST. PAUL, MINN.
J. H. CANFIELD, President.
W. R. GARRETT, Secretary.
E. C. HEWETT, Treasurer.

1891—TORONTO, ONT.
W. R. GARRETT, President.
E. H. COOK, Secretary.
J. M. GREENWOOD, Treasurer.

1892—SARATOGA SPRINGS, N. Y.
E. H. COOK, President.
R. W. STEVENSON, Secretary.
J. M. GREENWOOD, Treasurer.

1893—CHICAGO, ILL.
(International Congress of Education.)
ALBERT G. LANE, President.
IRWIN SHEPARD, Secretary.
J. M. GREENWOOD, Treasurer.

1894—ASBURY PARK, N. J.
ALBERT G. LANE, President.
IRWIN SHEPARD, Secretary.
J. M. GREENWOOD, Treasurer.

1895—DENVER, COLO.
NICHOLAS MURRAY BUTLER, President.
IRWIN SHEPARD, Secretary.
I. C. MCNEILL, Treasurer.

1896—BUFFALO, N. Y.
NEWTON C. DOUGHERTY, President.
IRWIN SHEPARD, Secretary.
I. C. MCNEILL, Treasurer.

1897—MILWAUKEE, WIS.
CHARLES R. SKINNER, President.
IRWIN SHEPARD, Secretary.
I. C. MCNEILL, Treasurer.

1898—WASHINGTON, D. C.
J. M. GREENWOOD, President.
IRWIN SHEPARD, Secretary.
I. C. MCNEILL, Treasurer.

1899—LOS ANGELES, CAL.
E. ORAM LYTE, President.
IRWIN SHEPARD, Secretary.
I. C. MCNEILL, Treasurer.

1900—CHARLESTON, S. C.
OSCAR T. CORSON, President.
IRWIN SHEPARD, Secretary.
CARROLL G. PEARSE, Treasurer.

1901—DETROIT, MICH.
JAMES M. GREEN, President.
IRWIN SHEPARD, Secretary.
L. C. GREENLEE, Treasurer.

1902—MINNEAPOLIS, MINN.
WILLIAM M. BEARDSHEAR, President.
IRWIN SHEPARD, Secretary.
CHARLES H. KEYES, Treasurer.

1903—BOSTON, MASS.
CHARLES W. ELIOT, President.
IRWIN SHEPARD, Secretary.
W. M. DAVIDSON, Treasurer.

1904—ST. LOUIS, MO.
JOHN W. COOK, President.
IRWIN SHEPARD, Secretary.
MCHENRY RHOADS, Treasurer.

1905—ASBURY PARK AND OCEAN GROVE, N. J.
WILLIAM H. MAXWELL, President.
IRWIN SHEPARD, Secretary.
JAMES W. CRABTREE, Treasurer.

1906—No session.

1907—LOS ANGELES, CAL.
NATHAN C. SCHAEFFER, President.
IRWIN SHEPARD, Secretary.
J. N. WILKINSON, Treasurer.

NATIONAL EDUCATIONAL ASSOCIATION

OFFICERS FOR 1905–1906
ALSO FOR 1906–1907

GENERAL ASSOCIATION

NATHAN C. SCHAEFFER	*President*	Harrisburg, Pa.
IRWIN SHEPARD	*Secretary*	Winona, Minn.
JASPER N. WILKINSON	*Treasurer*	Emporia, Kan.

VICE-PRESIDENTS

William H. Maxwell, New York, N. Y.
Miss N. Cropsey, Indianapolis, Ind.
J. H. Hinemon, Little Rock, Ark.
Ed. S. Vaught, Oklahoma City, Okla.
John F. Riggs, Des Moines, Iowa.
Joseph O'Connor, San Francisco, Cal.
D. B. Johnson, Rock Hill, S. C.
J. A. Shawan, Columbus, Ohio.
H. O. Wheeler, Burlington, Vt.
J. Y. Joyner, Raleigh, N. C.
John W. Spindler, Winfield, Kan.
J. Stanley Brown, Joliet, Ill.

BOARD OF TRUSTEES

Nicholas Murray Butler, *Chairman*	New York, N. Y.	Term expires July, 1906
*Albert G. Lane	Chicago, Ill.	Term expires July, 1907
James M. Greenwood	Kansas City, Mo.	Term expires July, 1909
Nathan C. Schaeffer	Harrisburg, Pa.	*Ex officio*

EXECUTIVE COMMITTEE

Nathan C. Schaeffer	*President*	Harrisburg, Pa.
William H. Maxwell	*First Vice-President*	New York, N. Y.
Jasper N. Wilkinson	*Treasurer*	Emporia, Kan.
*Albert G. Lane	*Chairman of Board of Trustees*	Chicago, Ill.
Nicholas Murray Butler	*Chairman of Trustees from Oct. 8, 1906*	New York, N. Y.
W. T. Harris	*Member by Election*	Washington, D. C.

Irwin Shepard	*Secretary*	Winona, Minn.

BOARD OF DIRECTORS

Directors ex officio

Nathan C. Schaeffer, Harrisburg, Pa.
William H. Maxwell, New York, N. Y.
Nicholas Murray Butler, New York, N. Y.
Jasper N. Wilkinson, Emporia, Kan.
*Albert G. Lane, Chicago, Ill.
Irwin Shepard, Winona, Minn.

Life Directors

Bicknell, Thomas W., Providence, R. I.
Board of Education, Nashville, Tenn.
Butler, Nicholas Murray, New York, N. Y.
Canfield, James H., New York, N. Y.
Cook, E. H., Madison, Wis.
Cook, John W., DeKalb, Ill.
Corson, Oscar T., Columbus, Ohio
Eliot, Charles W., Cambridge, Mass.
Gove, Aaron, Denver, Colo.
Graham, H. A., Mt. Pleasant, Mich.
Green, J. M., Trenton, N. J.
Greenwood, J. M., Kansas City, Mo.
Harris, W. T., Washington, D. C.
**Hunt, Mrs. Mary H., Boston, Mass.
Jewett, A. V., Abilene, Kan.
*Lane, Albert G., Chicago, Ill.
Lyte, Eliphalet Oram, Millarsville, Pa.
†Marble, Albert P., New York, N. Y.
Marshall, T. Marcellus, Stouts Mills, W. Va.
Maxwell, William H., New York, N. Y.

** Died April 26, 1906. * Died August 22, 1906. †Died March 25, 1906.

Life Directors—*continued*

PARKER, CHARLES I., Chicago, Ill.
‡PHELPS, W. F., St. Paul, Minn.
PICKARD, JOSIAH L., Cupertino, Cal.
PIKE, JOSHUA, Jerseyville, Ill.
SKINNER, CHARLES R., Watertown, N. Y.
SOLDAN, F. LOUIS, St. Louis, Mo.
STATE TEACHERS' ASSOCIATION of Illinois.
STRATTON, C. C., St. Johns, Oregon.
TAYLOR, A. R., Decatur, Ill.
TEACHER'S INSTITUTE, Philadelphia, Pa.
WHITE, CHARLES G., Lake Linden, Mich.
WILSON, J. ORMOND, Washington, D. C.

‡ Died August 15, 1907.

Directors by Election

North Atlantic Division

Maine	JOHN S. LOCKE	Saco
New Hampshire	JAMES E. KLOCK	Plymouth
Vermont	ISAAC THOMAS	Burlington
Massachusetts	HENRY T. BAILEY	North Scituate
Rhode Island	WALTER BALLOU JACOBS	Providence
Connecticut	CHARLES H. KEYES	Hartford
New York	JAMES C. BYRNES	New York
New Jersey	JOHN ENRIGHT	Freehold
Pennsylvania	JOHN W. LANSINGER	Millersville

South Atlantic Division

Delaware	GEORGE W. TWITMYER	Wilmington
Maryland	M. BATES STEPHENS	Annapolis
District of Columbia	ALEXANDER T. STUART	Washington
Virginia	JOSEPH L. JARMAN	Farmville
West Virginia	LUCY ROBINSON	Wheeling
North Carolina	J. I. FOUST	Greensboro
South Carolina	ROBERT P. PELL	Spartanburg
Georgia	WILLIAM M. SLATON	Atlanta
Florida	CLEM HAMPTON	Tallahassee

South Central Division

Kentucky	W. H. BARTHOLOMEW	Louisville
Tennessee	EUGENE F. TURNER	Nashville
Alabama	ISAAC W. HILL	Montgomery
Mississippi	ROBERT B. FULTON (for 1905–6)	University
	E. E. BASS (for 1906–7)	Greenville
Louisiana	WARREN EASTON	New Orleans
Texas	L. E. WOLFE	San Antonio
Arkansas	GEORGE B. COOK	Hot Springs
Oklahoma	ANDREW R. HICKAM (for 1905–6)	Oklahoma City
	RICHARD V. TEMMING (for 1906–7)	Edmond
Indian Territory	JOHN D. BENEDICT	Muskogee

North Central Division

Ohio	WELLS L. GRISWOLD	Youngstown
Indiana	T. A. MOTT	Richmond
Illinois	J. A. MERCER	Peoria
Michigan	WILLIAM H. ELSON (for 1905–6)	Grand Rapids
	WALES C. MARTINDALE (for 1906–7)	Detroit
Wisconsin	L. D. HARVEY	Menomonie
Iowa	A. V. STORM	Iowa City
Minnesota	JOHN A. CRANSTON (for 1905–6)	St. Cloud
	A. W. RANKIN (for 1906–7)	Minneapolis
Missouri	W. J. HAWKINS	Warrensburg
North Dakota	P. G. KNOWLTON	Fargo
South Dakota	M. A. LANGE	Millbank
Nebraska	GEORGE L. TOWNE	Lincoln
Kansas	L. D. WHITTEMORE	Topeka

Western Division

Montana	OSCAR J. CRAIG	Missoula
Wyoming	T. T. TYNAN	Cheyenne
Colorado	L. C. GREENLEE	Denver
New Mexico	C. M. LIGHT	Silver City

Directors by Election—*continued*

Arizona	A. J. Matthews	Tempe
Utah	D. H. Christenson	Salt Lake City
Nevada	J. E. Stubbs	Reno
Idaho	A. G. Sears	Idaho Falls
Washington	Edward T. Mathes	Bellingham
Oregon	E. D. Ressler	Monmouth
California	Arthur H. Chamberlain	Pasadena

Dependencies

Alaska	Cassia Patton	Sitka
Porto Rico	Frank H. Ball	San Juan
Hawaii	Arthur F. Griffiths	Honolulu
Philippine Islands	E. A. Coddington	Capiz, Panay

DEPARTMENT OFFICERS

National Council

ELMER ELLSWORTH BROWN	*President*	Washington, D. C.
AUGUSTUS S. DOWNING	*Vice-President*	Albany, N. Y.
J. W. CARR	*Secretary*	Dayton, Ohio
ANNA TOLMAN SMITH	*Executive Committee*	Washington, D. C.
HOWARD J. ROGERS	*Executive Committee*	Albany, N. Y.
JAMES M. GREENWOOD	*Executive Committee*	Kansas City, Mo.

Kindergarten

MARY C. MAY	*President*	Salt Lake City, Utah
ELMER E. BROWN	*Vice-President*	Washington, D. C.
MINNIE WOOD	*Secretary*	Pasadena, Cal.

Elementary

Mrs. ALICE WOODWORTH COOLEY	*President*	Grand Forks, N. D
CLARENCE F. CARROLL	*Vice-President*	Rochester, N. Y.
Mrs. JOSEPHINE HEERMANS	*Secretary*	Kansas City, Mo.

Secondary

EUGENE W. LYTTLE	*President*	Albany, N. Y.
WILSON FARRAND	*First Vice-President*	Newark, N. J.
EDWIN TWITMYER	*Second Vice-President*	Bellingham, Wash.
LEWIS B. AVERY	*Secretary*	Redlands, Cal.

Higher

WM. L. BRYAN	*President*	Bloomington, Ind.
GEORGE A. GATES	*Vice-President*	Claremont, Cal.
OSCAR J. CRAIG	*Secretary*	Missoula, Mont.

Normal

JOHN R. KIRK	*President*	Kirksville, Mo.
D. B. JOHNSON	*Vice-President*	Rock Hill, S. C.
MARY ALICE WHITNEY	*Secretary*	Emporia, Kan.

Superintendence

W. W. STETSON	*President*	Augusta, Maine
H. H. SEERLEY	*First Vice-President*	Cedar Falls, Iowa
R. J. TIGHE	*Second Vice-President*	Asheville, N. C.
J. H. HARRIS	*Secretary*	Minneapolis, Minn.

Manual

FRANK M. LEAVITT	*President*	Roxbury, Mass.
CHARLES R. BATES	*Vice-President*	Port Deposit, Md.
OSCAR L. McMURRY	*Secretary*	Chicago, Ill.

Art

EUGENE C. COLBY	*President*	Albany, N. Y.
CLARA A. WILSON	*Vice-President*	Davenport, Iowa.
HELEN E. LUCAS	*Secretary*	Rochester, N. Y.

Music

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TREASURER'S REPORT

TO THE

NATIONAL EDUCATIONAL ASSOCIATION

JULY 1, 1906, TO JUNE 30, 1907

J. N. Wilkinson, Treasurer, in Account with the National Educational Association

BALANCE ON HAND JULY 1, 1906

Balance brought forward from Treasurer's report for year ending June 30, 1906		$13,847.00

RECEIPTS

From transportation lines (Asbury Park Meeting):		
New York, New Haven & Hartford R. R. Co	$ 30.00	
Grand Trunk Railway	2.00	
Lehigh Valley Railroad	90.00	
Erie Railroad	25.00	
Pennsylvania Railroad Co	62.00	
Ocean Steamship Co	32.00	
Old Dominion Steamship Co	276.00	
Central Railroad of New Jersey	87.00	
New York Central & Hudson River Railroad	242.00	
Delaware, Lackawanna & Western Railroad	31.00	
New York, Ontario & Western Railroad	38.00	
		$915.00
From Board of Trustees:		
Income as per Report of Board of Trustees		$7,509.02
From Memberships, Chicago Meeting, Department of Superintendence		$1,184.00
From Secretary's office during the year:		
Membership fees	$8,604.00	
Enrollment fees	580.00	
Exchange	20.61	
Sale of back volumes	605.32	
Sale of special reports	211.85	
		$10,021.78
From royalty on sale of Reports of Committees of Ten and Fifteen		53.15
From interest on deposits in First National Bank of Chicago		226.83
Total receipts for the year		$33,756.78

DISBURSEMENTS

Board of Trustees:		
For investment	$5,000.00	
For expenses	387.44	
		$5,387.44
Executive Committee expenses:		
President	$163.41	
First Vice-President	25.00	
Treasurer	258.00	
Chairman Board of Trustees	36.75	
Member by election	127.20	
		$610.36
General Secretary's office:		
Salary of Secretary	$4,000.00	
Postage	1,183.80	
Telegrams	339.94	
Freight and express	40.78	
Clerical services	1,724.94	
Exchange	.90	

Stationery and office supplies	184.74	
Traveling	957.15	
Rent	600.00	
Miscellaneous	76.57	
		$9,108.82
Printing:		
Volumes of *Proceedings* (6,500 volumes), including 6,500 *Index Volumes*	$6,808.70	
Reprints from volumes	47.50	
Special reports	817.44	
Executive Committee Bulletins	888.22	
Miscellaneous	563.30	
		$9,125.16
Express and freight:		
Distribution of volumes and reports	$2,000.00	
Miscellaneous	172.42	
		$2,172.42
Special appropriations:		
Committee on Library Instruction	$293.04	
Committee on Industrial Education	86.88	
		$379.92
Annual Convention (in preparation for San Francisco Convention):		
Department expenses	$376.03	
State directors and managers for year 1905–6	36.30	
Badges for Department of Superintendence	39.25	
Printing	34.50	
Miscellaneous (refund of expenses of A. H. Chamberlain and Jas. A. Barr for securing advance memberships, San Francisco Convention)	599.32	
		$1,085.40
Unclassified expenses:		
Bonds of Secretary and Treasurer	$ 50.00	
Filing cases	11.20	
John B. Pine, legal services, incorporation	1,930.12	
Safe for Secretary's office	133.81	
Auditing books of Teasurer and Secretary	30.00	
Translations for *Anniversary Volume*	30.00	
Examination of securities	23.35	
Exchange of typewriter	50.00	
Multigraph (duplicating machine)	250.00	
Reports Committees of Ten and Fifteen	3.75	
J. S. Wyer, Jr., compiling Bibliography for *Anniversary Volume*	30.00	
Miss Martha Nelson, compiling General Index	820.00	
C. Alex Nelson, compiling Index to 1906 volume	44.60	
		$3,406.83
Total disbursements for the year		$31,276.35

SUMMARY

Receipts

Balance brought forward from the Treasurer's report for year ending June 30, 1906	$13,847.00	
Receipts for year July 1, 1906, to June 30, 1907	19,909.78	
		$33,756.78

Disbursements

Amount transferred to Permanent Fund, as per voucher No. 104	$5,000.00	
Total expenses for year	26,276.35	
		$31,276.35
Balance in treasury, June 30, 1907		$2,480.43

J. N. WILKINSON, *Treasurer.*

We, the undersigned Trustees of the National Educational Association, hereby approve the Report of J. N. Wilkinson, Treasurer.

NICHOLAS MURRAY BUTLER, *Chairman,*
JAMES M. GREENWOOD,
NATHAN C. SCHAEFFER,
Board of Trustees.

Chicago, Ill., September 28, 1907

Board of Trustees, National Education Association of the United States,

Gentlemen:—

We have audited the books and accounts of the National Educational Association of the United States, as kept by the Secretary, Irwin Shepard, and the Treasurer, J. N. Wilkinson, for the year 1906–7, and compared them with the relative vouchers, checks, and other instructions, and find the books to be correct.

We annex, hereto, a copy of the Treasurer's Report for the year under review, which we have checked in detail, and we certify it to be correct and in accordance with the books.

Yours respectfully,

THE INTERNATIONAL AUDIT COMPANY

By JOHN MCLAREN, *President.*

TWENTY-FIRST ANNUAL REPORT OF THE BOARD OF TRUSTEES

FOR THE YEAR JULY 1, 1906, TO JUNE 30, 1907

LOS ANGELES, CAL., July 8, 1907

To the Board of Directors of the National Educational Association:

The Board of Trustees of the National Educational Association presents the following report of the Permanent Fund of the National Educational Association and its income for the year ending June 30, 1907:

REPORT OF THE FUNDS OF THE NATIONAL EDUCATIONAL ASSOCIATION FROM JULY 1, 1906, TO JULY 1, 1907

PERMANENT FUND

COLLECTIONS

Cash on hand July 1, 1906	$ 7,450	
Received from Treasurer of Association	5,000	
Mortgages collected as follows:		
1919 Wabash Ave. (Thomas)	5,000	
1201 Irving Park Blvd. (Wadhams)	3,000	
626–628 W. Adams St. (Barker)	9,000	
2268 Kenmore Ave. (Dodge)	2,500	
Bonds collected as follows:		
Ness County	150	
Lemont School	500	
		$32,600

INVESTMENTS

West Chicago Park bonds (face value, $19,000)	$19,000	
St. Louis & San Francisco R. R. Co. bonds (face value, $7,000)	7,000	
Balance on hand (cash)	6,600	
		$32,600

CONDITION OF FUND JULY 1, 1906

Mortgages on real estate	$50,500	
Kansas school bonds	150	
Illinois municipal and school bonds	56,500	
Railroad bonds	35,000	
Master's certificate of sale	5,500	
Cash on hand for investment	7,450	
		$155,100

CONDITION OF FUND JULY 1, 1907

Mortgages on real estate	$31,000	
Illinois municipal and school bonds	75,000	
Railroad bonds	42,000	
Master's certificate of sale	5,500	
Cash on hand for investment	6,600	
		$160,100

INCOME FUND

RECEIPTS

Interest on real estate mortgages	$2,088.18	
Interest on Kansas bonds	4.50	
Interest on Illinois school and municipal bonds	3,055.00	
Interest on railroad bonds	1,400.00	
Interest on bank balances	110.12	
Discount on St. Louis and San Francisco R. R. Co. bonds bought	1,225.00	
		$7,882.80

DISBURSEMENTS

Express charges on Kansas bonds sold	$ .45	
Premium on West Chicago Park bonds bought	120.00	
Accrued interest on West Chicago Park bonds bought	253.33	
Credited account of National Educational Association in First National Bank of Chicago	7,509.02	
		$7,882.80

INTEREST RECEIPTS IN DETAIL

Terminal R. R. Ass'n coupons	$ 600.00	
Village of Morgan Park coupons	157.50	
Ness County accrued interest	4.50	
West Chicago Park coupons	760.00	
Baltimore & Ohio R. R. Co. coupons	800.00	
Chicago Drainage coupons	2,000.00	
Lemont School District coupons	137.50	
First Mortgage, 1201 Irving Park Boulevard	75.00	
First Mortgage, 5603 Madison Avenue	250.00	
First Mortgage, 1919 Wabash Avenue	167.70	
First Mortgage, 5239 Cornell Avenue	495.00	
First Mortgage, 626 West Adams Street	225.00	
First Mortgage, 5526 Jefferson Avenue	500.48	
First Mortgage, 5136 Hibbard Avenue	250.00	
First Mortgage, 2268 Kenmore Avenue	125.00	
First Trust and Savings Bank	110.12	
		$6,657.80

STATEMENT OF SECURITIES BELONGING TO THE PERMANENT FUND OF THE NATIONAL EDUCATIONAL ASSOCIATION, JULY 1, 1907, IN CUSTODY OF FIRST TRUST AND SAVINGS BANK, CHICAGO

ILLINOIS MUNICIPAL AND SCHOOL BONDS

Kind of Bond	Amount	Rate of Interest	Interest Payable	Bond Due
Village of Morgan Park, Ill.	$ 2,500	4½%	May and Nov.	Nov. 1, 1911
Village of Morgan Park, Ill.	1,000	4½%	Jan. and July	July 1, 1913
Lemont, Ill., School, Nos. 20, 22, 24, 30, 32	2,500	5 %	June and Dec.	500 yearly; Dec. 1
Chicago Drainage bonds, Nos. 24516 to 24525	10,000	4 %	Dec. and June	Dec., 1916
Chicago Drainage bonds, Nos. 24591 to 24625, and 24636 to 24640	40,000	4 %	Dec. and June	Dec., 1917
West Chicago Park bonds, Nos. 1101 to 1109	9,000	4 %	Apr. and Oct.	Apr., 1918
West Chicago Park bonds, Nos. 615, 629, 630, 631, and 1243 to 1248	10,000	4 %	Apr. and Oct.	Apr., 1919
	$75,000			

RAILROAD BONDS

Kind of Bond	Amount	Rate of Interest	Interest Payable	Bond Due
Terminal R. R. Ass'n of St. Louis Nos. 16311 to 16325	$15,000	4%	Jan. and July	Jan., 1953
Pittsburg, Lake Erie & West Virginia bonds, Nos. 13496 to 13500 and 21236 to 21250	20,000	4%	May and Nov.	Nov. 1, 1941
St. Louis & San Francisco R.R. Co., Nos. 47457, 49012, 47537, 57514, 57373, 49670, 47435	7,000	4%	Jan. and July	July, 1951
	$42,000			

FIRST MORTGAGES ON CHICAGO REAL ESTATE

Location of Real Estate	Amount	Rate of Interest	Interest Payable	Bond Due
5136 Hibbard Avenue (Ritchie)	$ 5,000	5 %	May and Nov. 1	Nov. 1, 1908
5603 Madison Avenue (Lewis)	5,000	5 %	July and Jan.	July 1, 1909
5526–8 Jefferson Avenue (Wallace)	10,000	5 %	Apr. and Oct.	Oct. 1, 1907
5239–41 Cornell Avenue (Dickinson)	11,000	4½%	Jan. and July	Jan. 1909
	$31,000			

CERTIFICATE OF MASTER'S SALE

Location of Property	Amount	Rate of Interest	Date of Sale
4762 Lake Avenue (Hord)	$5,500	5%	Apr. 1907

Respectfully submitted,
NICHOLAS MURRAY BUTLER, *Chairman*,
JAMES M. GREENWOOD,
NATHAN C. SCHAEFFER,
Board of Trustees.

The above and foregoing is a correct statement of the account of the funds of the National Educational Association from July 1, 1906, to July 1, 1907, as the same appears on the books of this bank.

FIRST TRUST AND SAVINGS BANK OF CHICAGO, ILL.
By LOUIS BOISOT,
Trust Officer.

CERTIFICATE OF EXAMINER OF SECURITIES

CHICAGO, ILL., June 17, 1907

I have this day examined the securities named in the foregoing statement made by Nicholas Murray Butler, chairman, James M. Greenwood, and Nathan C. Schaeffer, members of the Board of Trustees, and Louis Boisot, trust officer of the First Trust and Savings Bank of Chicago, and find all the bonds or securities in their possession.

EDWIN G. COOLEY, *Examiner.*

JOURNAL OF PROCEEDINGS

OF THE

FORTY-FIFTH ANNUAL CONVENTION

OF THE

NATIONAL EDUCATIONAL ASSOCIATION

LOS ANGELES, CAL., JULY 8–12, 1907

SUNDAY SERVICES

Special Sunday services, including sermons on educational topics, were held in several of the churches of Los Angeles in recognition of the educational convention to occur the following week, as follows:

In the Temple Auditorium by Rev. Robert J. Burdette. Topic—"The Divine Diploma;" Text—"Rabbi, we know that Thou art a teacher come from God."

In the Catholic Cathedral Rt. Rev. Thomas J. Conaty preached on "The Catholic Church in the Educational Movement."

At the First Congregational Church Rev. William Horace Day preached in the morning on the topic, "Christ's Call to the Scholar," and on "The Pedagogy of Jesus" in the evening.

Rev. Frank DeWitt Talmage, of the First Presbyterian Church, spoke on "The Teacher's Throne."

Rev. Robert McIntyre preached on "The Model School Teacher," at the First Methodist Church.

Rev. J. J. Wilkins, at the Episcopal Pro-Cathedral, preached on the subject, "The Principles of Education."

Rev. Benjamin Fay Mills, at Blanchard Hall, delivered a sermon on the topic, "The Reform of Education."

Rabbi S. Hecht, at the Synagogue, preached on the subject, "Jewish Progress in Educational Methods."

OPENING SESSION—MONDAY AFTERNOON, JULY 8

The forty-fifth annual convention, being the fiftieth anniversary of the organization of the National Educational Association, was introduced by an organ concert of thirty minutes by Bruce Gordon Kingsley, which preceded the formal opening. The convention was called to order in the Temple Auditorium, Los Angeles, by President Nathan C. Schaeffer, of Pennsylvania, at 2:30 P. M.

Prayer was offered by Rev. Frank DeWitt Talmage, of the First Presbyterian Church.

Rev. Robert J. Burdette delivered an address of welcome, to which response was made on behalf of the Association by Dr. W. T. Harris, of Washington, D. C.

A vocal solo, "Aria, from Mignon," was sung by Miss Blanche Ruby.

Dr. Nathan C. Schaeffer, of Harrisburg, Pa., president of the National Educational Association, delivered the presidential address on "How Can the Schools Aid the Peace Movement?"

Miss Blanche Ruby then sang a solo, "Spring," by Henschel.

Dr. William O. Thompson, president of Ohio State University, offered the following declaration:

The teachers of the United States of America assembled in the National Educational Association, at Los Angeles, California, July 8, 1907, viewing with pleasure and satisfaction the conditions which have brought about the Second Hague Conference, adopt the following minute as suggesting the principles to which they adhere:

We believe that the forces of this world should be organized and operated in the interests of peace and not of war; we believe that the material, commercial, and social interests of the people of the United States and of the whole world demand that the energies of the governments and of the people be devoted to the constructive and helpful pursuits of peace and that the people be relieved of the burdens of providing at enormous expense the armaments suggested by the competitive desire for supremacy in war; we further believe that the fear of war and the possibility of war would alike decline if the governments were to rely more upon the sentiment of the people and less upon the strength of their armies and navies. We recommend the following resolutions:—

1. We indorse and commend the sentiments expressed in the annual address by the President of this Association.

2. We urge upon our representatives at the Second Hague Conference to use their influence to widen the scope and increase the power of the Hague Tribunal.

3. While disclaiming any desire to suggest a program or to urge specific action, we do urge our representatives to secure the most favorable action possible upon international arbitration, the limitation of armaments, the protection of private property at sea, and the investigation of international disputes by an impartial commission before the declaration of hostilities.

4. We recommend to the teachers that the work of the Hague Conference and of the Peace Associations be studied carefully and the results given proper consideration in the work of instruction.

On motion the declaration was referred to the Committee on Resolutions to be reported back to the Association with recommendation at the closing meeting of the Convention.

An address on "Education and Democracy" was given by President A. B. Storms, of Iowa State College, Ames, Iowa.

The following Committee on Resolutions was appointed by President Schaeffer:

COMMITTEE ON RESOLUTIONS

Charles C. Van Liew, *Chairman*, president of State Normal School, Chico, Cal.
Walter A. Edwards, president of Throop Polytechnic Institute, Pasadena, Cal.
Francis G. Blair, state superintendent of public instruction, Springfield, Ill.
Gustavus R. Glenn, president of North Georgia Agricultural and Mechanical College, Dahlonega, Ga.
S. A. Underwood, principal of Westport High School, Kansas City, Mo.
S. Belle Chamberlain, state superintendent of public instruction, Boise, Idaho.
William E. Hatch, superintendent of schools, New Bedford, Mass.
Maude B. Hansche, Commercial High School for Girls, Philadelphia, Pa.

The convention adjourned to meet at eight o'clock P. M.

SECOND SESSION—MONDAY EVENING, JULY 8

The convention was called to order at eight o'clock P. M. by President N. C. Schaeffer, after an organ prelude by Bruce Gordon Kingsley.

Prayer was offered by Rev. J. P. McKnight, of Los Angeles.

The United German Male Choruses of Los Angeles, under the direction of Henry Schoenefeld, director, supplied the music for the evening and opened with (*a*) "Der Tag des Herrn," by Kreutzer, and (*b*) "In Einem kuehlen Grunde," by Glueck.

Hon. Francis E. Leupp, United States commissioner of Indian affairs, Washington, D. C., gave a brief address on "Indians and Their Education."

At this point in the program, President Schaeffer introduced Dr. Elmer Ellsworth Brown, United States commissioner of education, and president of the National Council of Education, as presiding officer for the balance of the evening program, which was a joint session of the General Association and the National Council.

President Brown introduced, as representing the National Council, Mrs. Ella Flagg Young, principal of the Chicago Normal School, who read a "Report on Educational Progress During the Past Two Years."

The session closed with music by the United German Male Choruses, who sang, (*a*) "Sturm-Beschwoerung," by Duerner, and (*b*) "Verlassen," by Koschat.

The Association then adjourned.

THIRD SESSION—Tuesday Evening, July 9, 1907

After an organ prelude by Bruce Gordon Kingsley, the Association was called to order by President Schaeffer.

Prayer was offered by Rev. A. W. Atkinson, of Los Angeles.

Music—"Winter Song," by F. W. Bullard, sung by the Los Angeles Shrine Quartet, William James Chick, director.

Honorable M. Uribe y Trancoso of the Department of Education of the Republic of Mexico was introduced by President Schaeffer. In response, he extended to the convention "Greetings from a Sister Republic."

Rt. Rev. Thomas J. Conaty, Bishop of Monterey and Los Angeles, delivered an address on "The Personality of the Teacher."

Music—"When the Corn is Waving"—Dudley Buck, by the Los Angeles Shrine Quartet.

"The Economic Relations of Education" was the subject of the closing address of the evening by Dr. William O. Thompson, president of Ohio State University, Columbus, Ohio. T. A. Mott, superintendent of schools, Richmond, Ind., led in a discussion of President Thompson's paper.

The following Committee on Nominations was appointed by President Schaeffer in accordance with By-Law No. 1:

COMMITTEE ON NOMINATIONS

Joseph Swain, Pennsylvania, *Chairman*
Alabama.....(vacant)
Arizona.....Arnoldas H. McClure
Arkansas.....George B. Cook
California.....Richard D. Faulkner
Colorado.....Daniel P. Taylor
Connecticut.....Charles H. Keyes
Delaware.....(vacant)
D. of Columbia.W. T. Harris
Florida.....William M. Holloway
Georgia.....(vacant)
Idaho.....S. Belle Chamberlain
Illinois.....John D. Shoop
Indiana.....Robert J. Aley
Indian TerritoryJohn D. Benedict
Iowa.....F. F. Almy
Kansas.....Edward T. Fairchild
Kentucky.....William H. Bartholomew
Louisiana.....(vacant)
Maine.....(vacant)
Maryland.....James H. Van Sickle
Massachusetts...William E. Hatch
Michigan.....E. E. Scribner
Minnesota.....John W. Olsen
Mississippi.....B. L. Hatch
Missouri.....James M. Greenwood
Montana.....R. J. Cunningham
Nebraska.....A. O. Thomas
Nevada.....J. E. Stubbs
New Hampshire (vacant)
New Jersey.....James M. Green
New Mexico....Wm. H. Decker
New York.....Eugene W. Lyttle
North Carolina. (vacant)
North Dakota. .Mrs. K. B. Macdonald
Ohio.....Wells L. Griswold
Oklahoma.....Ernest E. Balcomb
Oregon.....Reuben F. Robinson
Pennsylvania....Joseph Swain
Rhode Island...(vacant)
South Carolina..D. B. Johnson
South Dakota...George W. Nash
Tennessee.....I. C. McNeill
Texas.....Lloyd E. Wolfe
Utah.....D. H. Christensen
Virginia.....(vacant)
Washington.....Edwin Twitmyer
West Virginia...(vacant)
Wisconsin.....Lorenzo D. Harvey
Wyoming.....Estelle Reel
Vermont.....(vacant)

After announcement that the Nominating Committee would meet in Children's Hall, Auditorium Building, at 9 o'clock A. M., Wednesday, the convention adjourned to Thursday evening, July 11.

FOURTH SESSION—Wednesday Evening, July 10

The Association was called to order by President Schaeffer at 8 P. M.

Following an organ prelude by Bruce Gordon Kingsley, prayer was offered by Rabbi S. Hecht, of Los Angeles.

A chorus, "Morning Song," by J. Ruff, was sung by The Los Angeles Apollo Club under the directorship of Eugene E. Davis.

E. G. Cooley, superintendent of schools, Chicago, Ill., addressed the convention on "The Basis for Grading Teachers' Salaries."

Charles H. Keyes, supervisor of schools, South District, Hartford, Conn., spoke on the subject of "Teachers' Pensions."

The Los Angeles Apollo Club sang "The Heavens are Telling," from the *Creation*.

"Other Forms of Compensation for Teachers" was the subject of an address by George W. Nash, president of State Normal and Industrial School, Aberdeen, S. Dak.

The topic was discussed by Alexander Hogg, Ft. Worth, Tex.

The convention then adjourned to Thursday Evening, July 11.

FIFTH SESSION—Thursday Evening, July 11

Following an organ prelude by Bruce Gordon Kingsley, prayer was offered by Rev. William Horace Day of the First Congregational Church of Los Angeles.

A solo, "Ah! fors e lui" (La Traviata), Verdi, was then sung by Ellen Beach Yaw.

"Schools for Defectives in Connection with the Public Schools" was the subject of the first address, by Carroll G. Pearse, superintendent of city schools, Milwaukee, Wis.

J. W. Olsen, state superintendent of public instruction, St. Paul, Minn., presented a paper on "The School and the Library."

President Schaeffer then introduced Mrs. Catherine Pierce Wheat, representing the Woman's Christian Temperance Union of Los Angeles, who presented to President Schaeffer, with appropriate remarks, a beautiful gavel for the use of the President of the Association at the Annual Conventions. This gavel, which is intended as a companion of the gift of a silk United States flag by the same organization in 1899, is composed of the following named woods: eucalyptus, magnolia, oak, apricot, toon, lemon, gavilla, locust, live oak, black locust, and (handle) manzanito.

Music: a vocal solo, "Thou Brilliant Bird," David, by Ellen Beach Yaw, with flute obligato by Miss Mead.

"The Influence of Women's Organizations upon Public Education" was the subject of a paper presented by Mrs. Helen L. Grenfell, high-school visitor, State Agricultural College, Denver, Colo. This paper was discussed by Miss Adelaide Steele Baylor, superintendent of schools, Wabash, Ind.

The Association then adjourned.

SIXTH SESSION—Friday Afternoon, July 12

The closing session of the fiftieth anniversary convention was called to order by President Schaeffer at 2:30 P. M.

An organ prelude was rendered by Bruce Gordon Kingsley.

Prayer was offered by Rev. J. J. Wilkins, of Los Angeles.

The Woman's Lyric Club of Los Angeles, under the direction of J. B. Poulin, sang Schubert's "God in Nature," with organ accompaniment by Mrs. J. H. Chick.

President Benjamin Ide Wheeler, of the University of California, delivered an address upon the subject, "Call Nothing Common."

The closing address of the session and of the convention was delivered by Professor John Adams, University College, London, England, on the subject "A Significant Lack of Educational Terminology."

The Woman's Lyric Club sang, with organ accompaniment, the following: (*a*) "The Moths," Palicot; (*b*) "The Fountain," Bartlett.

President Schaeffer then introduced Charles C. Van Liew, president of the State Normal School, Chico, Cal., and chairman of the Committee on Resolutions, who presented the report of the committee as follows:

NATIONAL EDUCATIONAL ASSOCIATION

Los Angeles, Cal., July 12, 1907

DECLARATION OF PRINCIPLES

The National Educational Association, now holding its forty-fifth annual convention in Los Angeles and representing teachers and friends of education in every state of this Union, makes the following declaration of principles and aims:

1. American teachers have been accustomed for years to look upon the bureau of education of the Department of the Interior at Washington, D. C., as the nation's great educational exchange and clearing-house, not only for educational information and statistics but also for the extensive investigation of special questions touching education and for the dissemination of the results of such work. Realizing that this work, to be effective must receive liberal financial aid, the Association wishes to declare the bureau of education worthy of a much larger support than it has received in the past and to urge upon Congress the favorable consideration of this need.

2. The National Educational Association notes with approval that the qualifications demanded of teachers in the public schools, and especially in city schools, are increasing annually, and particularly that in many localities special preparation is demanded of teachers. Some of the large universities, recognizing their responsibility to their immediate communities, have organized courses suitable in scope and convenient as to hours for these teachers. The idea that anyone with a fair education can teach school is gradually giving way to the correct notion that teachers must make special preparation for the vocation of teaching. The higher standard demanded of teachers must lead logically to higher salaries for teachers. We regret the attempt that is being made in some quarters to evade the consequence of low salaries. The salaries and often the conditions under which the teachers in the public schools teach do not offer sufficient inducement to offset the more promising positions in the commercial life of a large city. Recourse is had, therefore, to selecting students with incomplete high-school or normal-school training to fill these yearly increasing vacancies. Hence we believe that constant effort should be made by all persons interested in education to secure for teachers such adequate compensation for their work that both teacher and public will recognize teaching as a profession. We wish heartily to indorse the action of those legislatures that have fixed a minimum salary at a living wage.

3. The rapid establishment of township or rural high schools is one of the most gratifying evidences of the progress of education. We believe that this movement should be encouraged until the children of rural communities enjoy the benefits of public education to an extent approximating as nearly as practicable the education furnished in urban communities.

4. The Association heartily approves of the efforts now being made to determine the proper place of industrial education in the public schools. We believe that the time is rapidly approaching when both industrial and commercial education should be introduced into all schools and made to harmonize with the occupations of the community. These courses, when introduced should include instruction in agricultural as well as manual branches. We believe that it is the duty of the state not only to qualify its children to be good citizens but also as far as possible to be useful members of their community. Hence, wherever conditions justify their establishment, trade schools should be maintained at public expense to fit children as far as possible for a chosen career.

5. The National Educational Association indorses the increasing use of urban school buildings for free vacation schools and for free evening schools and lecture courses for adults and for children who have been obliged to leave the day school prematurely. We also approve of the use of school grounds for playgrounds and even of the buildings for the relief of the poor in the crowded districts during summer.

6. It is the duty of the state to provide for the education of every child within its borders, and to see that all children obtain the rudiments of an education. The constitutional provision that all taxpayers must contribute to the support of the public schools logically carries with it the implied provision that no persons should be permitted to defeat the purposes of the public-school law by forcing their children, at an early age to become bread winners. To this end the child labor and truancy laws should be so harmonized that the education of the child, not its labor, be made the desideratum.

7. The national government should provide schools for the children of all persons living in territory under the immediate control of the government. The attention of Congress is specially directed to the need of adequate legislation to provide schools for the children of citizens of the United States living on naval reservations.

8. The Association regrets the revival in some quarters of the idea that the common school is a place for teaching nothing but reading, spelling, writing, and ciphering; and takes this occasion to declare that the ultimate object of popular education is to teach children

how to live righteously, healthfully, and happily, and that to accomplish this object it is essential that every school inculcate the love of truth, justice, purity, and beauty thru the study also of biography, history, ethics, natural history, music, drawing, and the manual arts.

9. The National Educational Association wishes to record its approval of the increasing appreciation among educators of the fact that the building of character is the real aim of the schools and the ultimate reason for the expenditure of millions for their maintenance. There are in the minds of the children and youth of today a tendency toward a disregard for constituted authority, a lack of respect for age and superior wisdom, a weak appreciation of the demands of duty, a disposition to follow pleasure and interest rather than obligation and order. This condition demands the earliest thought and action of our leaders of opinion and places important obligations upon school authorities.

10. The National Educational Association wishes to congratulate the secondary schools and colleges of the country that are making an effort to remove the taint of professionalism that has crept into students' sports. This taint can be removed only by leading students, alumni, and school faculties to recognize that inter-school games should be played for sportsmanship and not merely for victory.

11. The National Educational Association observes with great satisfaction the tendency of cities and towns to replace large school committees or boards, which have exercised thru subcommittees executive functions, by small boards which determine general policies, but intrust all executive functions to salaried experts.

12. Local taxation, supplemented by state taxation, presents the best means for the support of the public schools, and for securing that deep interest in them which is necessary to their greatest efficiency. State aid should be granted only as supplementary to local taxation, and not as a substitute for it.

13. We cannot too often repeat that close, intelligent, judicious supervision is necessary for all grades.

14. The National Educational Association approves the efforts of the Simplified Spelling Board and other bodies to promote the simplification of English spelling by the judicious omission of useless silent letters, and the substitution of a more regular and intelligible spelling in place of forms that are grossly irregular or anomalous, such amendments to be made according to the existing rules and analogies of English spelling, with a due regard to the standards accepted by scholars; and the Association hereby approves the simpler forms contained in the list of three hundred words now spelled in two or more ways, published by the Simplified Spelling Board, and containing the twelve simplified forms now used by this Association and directs that these simpler forms be used in the publications of the Association in accordance with the rule now in force, that if the writer of any paper published by this Association expressly so desires, his paper shall be printed in the old spelling.

15. Without seeking to determine the merits of coeducation versus separation of the sexes in higher institutions the Association recognizes that at present the demand for separate higher instruction for women is greater than existing colleges for women can supply. Moreover, the great colleges for women are almost all grouped in one section of the country. We urge upon the attention of the friends of higher education for women the needs of the western and southern states for this kind of educational institution.

16. The Association believes that secret societies, fraternities, and sororities are inimical to the best interests of schools and pupils, and we urge school authorities to abolish them in all secondary and elementary schools.

17. In teaching, as in every other kind of work, the best service is secured by finding the individual best fitted to the particular place as indicated by training, experience, and meritorious service; the National Educational Association accordingly heartily approves a merit system of promoting teachers and filling vacancies. We assert, furthermore, that the grounds upon which a teacher may apply for a position are preparatory training, experience, and meritorious service, in a word, professional fitness, alone; and that the use of other personal and political arguments is immoral in the teacher and a serious menace to a high professional standard.

18. The Association regrets the purely theoretical work which still characterizes much of our so-called training of teachers, especially in colleges and universities, and urges the establishment everywhere of training and practice facilities for the better preparation of teachers.

19. The National Educational Association believes that the forces of this world should be organized and operated in the interests of peace and not of war; we believe that the material, commercial, and social interests of the people of the United States and of the whole world demand that the energies of the governments and of the people be devoted to the constructive and helpful pursuits of peace and that the people be relieved of the burdens of providing, at enormous expense, the armaments suggested by the competitive desire for

supremacy in war. We further believe that the fear of war and the possibility of war would alike decline if governments were to rely more upon the sentiment of the people and less upon the strength of their armies and navies. We, accordingly, indorse and commend the sentiments expressed in the annual address by the president of this Association. We urge upon our representatives at the Second Hague Conference to use their influence to widen the scope and increase the power of the Hague Tribunal. While disclaiming any desire to suggest a program or to urge specific action we do urge our representatives to secure the most favorable action possible upon international arbitration, the limitation of armaments, the protection of private property at sea, and the investigation of international disputes by an impartial commission before the declaration of hostilities. We recommend to teachers that the work of the Hague Conference and of the peace associations be studied carefully and their results given proper consideration in the work of instruction.

20. The Association pledges itself anew to that time-honored conception of the teachers' office which makes it one of *unselfish* service in a great human cause, education; and it calls upon teachers everywhere to remember that this conception must be fundamental in the establishment and conduct of their professional associations.

CHARLES C. VAN LIEW, of California, *Chairman;*
WALTER A. EDWARDS, of California;
S. A. UNDERWOOD, of Missouri;
[1] S. BELLE CHAMBERLAIN, of Idaho;
[2] FRANCIS G. BLAIR, of Illinois;
[2] GUSTAVUS R. GLENN, of Georgia;
[3] WILLIAM E. HATCH, of Massachusetts;
[4] MAUDE B. HANSCHE, of Pennsylvania.
Committee on Resolutions.

After the reading of the declaration of principles, C. P. Cary, of Wisconsin, moved the adoption of the report as read by Chairman Van Liew. The motion was seconded.

J. M. GREENWOOD, of Missouri: There is one clause in section fourteen of the report of the Committee on Resolutions which is mandatory and should go to the Board of Directors. It directs that three hundred words, adopted by the Simplified Spelling Board, be used in all the publications of the Association. That part of section fourteen should go to the Board of Directors, because it is administrative and not an appropriate matter for consideration and action at this time. It is not in order for this body to give such a direction to the Secretary of the Association

MR. CARY: I agree with the statements just made, and with consent of my second, I withdraw my motion.

A rereading of section 14 was called for and it was read by Chairman Van Liew.

MR. GREENWOOD: I move to strike out all that part of section 14 that begins with the word "direct." Mr. Cary seconded the motion.

E. O. VAILE, of Illinois: *Mr. President,* I regret exceedingly that my esteemed friend has forced this question to an issue here and now. The clause which he moves to strike out is the vital point in the resolution. Can we afford to strike it out? If his motion

[1] The official copy of the Declaration of Principles which was filed with the Secretary was not signed by any members of the Committee on Resolutions. Altho it bore the typewritten names of all members, it was known that some members were not present at Los Angeles. It was therefore necessary for the Secretary to get authority, by correspondence, from each member of the Committee for attaching the respective signatures to the report. This correspondence led to the full authorization of the signatures of the four members first named, altho Miss Chamberlain states that she opposed the adoption of section 14 until such time as it could receive full discussion and the approval of the active members, but finally agreed to it because she understood at the time that it was approved by a majority of the Committee.

[2] Superintendent F. G. Blair and President G. R. Glenn were not present at Los Angeles and were therefore not parties to the report. They however, authorize attaching their signatures to the Declaration of Principles, with a proviso excepting section 14. They both express dissent from the mandatory feature of that section as embodied in the report.

[3] Superintendent W. E. Hatch authorizes his signature to be added as approving the report with the exception of Section 14, in which he did not concur so far as it "directed" the immediate adoption of all of the new forms recommended by the Simplified Spelling Board.

[4] Mrs. Maude B. Hansche, authorizes her signature to be added with non-approval of section 14.

prevails the whole spelling reform movement will be throttled in the house of its friends and this great organization will stand before the world self-stultified and discredited.

We all noted with surprise in the papers this morning the action of our new board of directors last evening instructing our secretary to use hereafter the old spellings of "tho," "thru," "thoro" and their compounds. That resolution was introduced at the close of a strenuous session, after some directors had left the meeting and while others were engaged in the committee-room. No notice had been given that the subject would be brought up. By twelve ayes and eight nays, and without any discussion whatever, the resolution was passed, and this, the largest and most influential educational organization in the world, was made to appear in the dispatches this morning as trifling not only with its own record and dignity, but with a subject which by its own example and teaching for ten years the public has begun to regard as worthy of serious consideration. This resolution was introduced and passed not only in defiance of fair play but in defiance of the well-known sentiment of a large majority of our membership.

This is the first instance in all the ten years of this spelling agitation among us, in which any important action has been proposed without giving opportunity for full discussion—the first instance of what was not conspicuously a square deal.

The real question before us is, shall we indorse this reactionary step taken by our board of directors, or shall we assert our supremacy and countermand its order? You are the supreme court to settle this question. I cannot think for one moment that you are going to strike out the vital clause from this resolution.

Ten years ago this organization thru its board of directors, instructed its secretary to adopt thereafter in all official publications and correspondence such simplified spellings as have been recommended by a committee consisting of Dr. W. T. Harris, Superintendent Soldan of St. Louis, and Superintendent Balliet of Springfield, Mass.

From that day to this these twelve so-called N. E. A. short spellings have been used in all matter put forth by this Association, and thru the influence of its authority and example these short forms have grown gradually but constantly in public favor and use.

For four years, as you know, a proposition was pending before this Association, to give a considerable sum annually to foster this movement. Altho our active membership declared itself overwhelmingly in favor of the proposition, our constituted authorities prevented action upon it until such action became needless thru the courage of one of our philanthropic millionaires who stepped into the breech and offered the necessary funds, if a satisfactory number of prominent business and educational men would positively identify themselves with this cause and take personal charge of the expenditure of the money in promoting it.

This explains the origin of the Simplified Spelling Board, the creation of which is directly due to discussions and actions in this body or in the Department of Superintendence, a board on which several of your prominent members have seats and an influential voice. On this board there is not a man whose record and prominence in education, or science, or literature, or business, does not entitle his judgment to the confidence and indorsement of every man or woman in or out of this Association. There is not a single spelling reform zealot or fanatic on that board. They are level-headed, sensible, cautious, but progressive men—not only President Roosevelt, United States judges, and university presidents and professors, but the editor-in chief of every English dictionary of any prominence either in this country or in England. Not a man among them who, for a moment, would countenance any extreme or impracticable step.

This is the board whose first practical recommendation our committee advises us to instruct our secretary to follow hereafter. Shall we stand by this board, for whose existence we are so largely responsible, or shall we desert it at this critical period?

Everybody knows that the 300 shorter spellings which constitute this first step consist of the simpler of two different spellings, both of which are fully established by good usage

and dictionary authority. There is not a word in the list which in any real sense can be called a new spelling.

It is stated by those who ought to know better that no publications have as yet adopted the N. E. A. spellings; that these spellings have made no headway. I hold in my hand a printed list of over 100 periodicals which now regularly use these twelve simpler forms or others of their own choosing. Here are the *New York Independent*, the *Springfield Republican*, the *Toronto Globe*, the *Minneapolis Journal*, the *Literary Digest*, the *Medical World*, the *New York School Journal*, and a number of scientific and trade journals. One of the leading dailies of this city (Los Angeles) has had under consideration the adoption of the N. E. A. spellings. Is there any truth or sense in saying that this does not indicate progress? What more can reasonably be asked? I am credibly informed that some of our leading monthlies are considering the formation of a league looking to the simultaneous adoption of the shorter spellings recommended by the Simplified Spelling Board. So potent have been the authority and example of this Association that the twelve N. E. A. spellings are now generally regarded as fairly well authorized. Today you will scarcely find an educational institution, or a city or county school superintendent or examining board in this whole country outside of the most benighted and backwoods districts who wishes or dares to discriminate against these short spellings when they appear in the manuscripts of pupils and teachers. The educated public now clearly accepts them as permissive forms. Yet, in spite of all this, we are now compelled to combat here an effort to have this organization turn its face backward in this matter and bring upon itself discredit and ridicule.

Nothing has occurred to justify this backward step. The cause is progressing. A well organized board, with funds in hand, almost the direct offspring of this Association, is now in the field to head this movement. It deserves, and it ought to have, and I believe it will have, our indorsement to the full extent indicated in the resolution reported by our committee.

I move as a substitute for the motion now pending that section 14 be allowed to stand as it is.

PRESIDENT SCHAEFFER: That motion would be out of order.

MR. VAILE: I move as a substitute for the motion now pending, that section 14 be allowed to stand as read: Seconded.

PRESIDENT SCHAEFFER: That motion is in order and is now open for discussion.

MR. GREENWOOD: Ten years ago I was one of eighteen directors who voted for the use of the list of twelve words, when seventeen directors voted against it. I state this to show that this has been understood to be the business of the Board of Directors. Now, if this mass meeting is to pass on matters of this kind, we could include 1,200 words just as well as 300. The point I make is, that it is the Board of Directors which should direct. This resolution proposes to direct the administrative policy of the Association when it has no authority to direct. I want my objection to go on record, because this is a legal question. We can here in this meeting express our opinions, but we should not assume to direct in matters that belong to the administrative body.

MISS SHIRLEY: I am in favor of progress, and opposed to taking any backward step. If this reform spelling was good last year, it is good this year. I know of no higher tribunal than the teachers themselves. If our directors do not do as we wish, we will depose them and not be run by a clique. Let us not stultify ourselves. I, as a teacher, have worked on this old spelling many years; as a pupil, I learned it, but I am not proficient in it today. Let us have something that is sensible.

MR. VAILE: I am sorry that my friend from Missouri has befogged this question. The Board of Directors is supreme in financial and administrative questions, but this spelling question is not an administrative question.

PRESIDENT SCHAEFFER: The question is on the substitute offered by Mr. Vaile.

The President, in answer to a question, stated that only active members should vote on Mr. Vaile's motion to leave section 14 as read by Chairman Van Liew.

MR. VAILE: I call for a rising vote.

A rising vote was ordered, which resulted in the motion being carried by 209 to 23. It was, however, impossible to determine if all voting were active members of the Association.

On motion, the Declaration of Principles was then adopted by a general vote of the convention, the vote not being confined to active members.

Chairman Van Liew then read the balance of the report of the Committee on Resolutions as follows:

Resolved, That we recognize in the presence at our meeting of an official delegation of distinguished representatives of the Ministry of Public Instruction of the United States of Mexico, an event of the first importance in the future relations of the American republics. We hail their coming as the auspicious beginning of educational interchange with neighboring nations, an interchange by which each country shall learn valuable lessons from the other, and which cannot fail to be of the utmost importance, therefore, to the future development of both. And we take this opportunity to transmit to the teachers of the Republic of Mexico the assurance of our very great interest and satisfaction in the work which they have already accomplished, and are now striving to accomplish thru the agencies of public instruction.

Resolved, That we express to Doctor William T. Harris, who has retired since our last meeting from his post as Commissioner of Education, sentiments of deep affection and high honor. In so doing we would bear witness to our very high appreciation of the splendid leadership he has long given us, of the intellectual, moral, and professional stimulus we have always felt from it, and of the tremendous value of his far-reaching labors.

Resolved, That the thanks of the National Educational Association are due, and are hereby most cordially tendered, to the residents of Los Angeles for their lavish and hearty hospitality; to the newspapers of Los Angeles, and to the associated press that have fully recorded the proceedings of the Association; to those railroads and other transportation companies that have aided in bringing about a large membership and attendance; to the teachers of Los Angeles and of California for their splendid support and entertainment, especially to those whose services upon local city and state committees have made the organization and conduct of the meeting a success, and to many of the citizens of California and Los Angeles, who are not teachers, but whose interest in the Association and efforts in behalf of this convention have been vital.

On motion the resolutions were adopted by the convention in a rising vote.

CHAIRMAN VAN LIEW: Mr. Secretary, in behalf of the Committee on Resolutions and of the entire Association, I move the adoption of the following resolution, and ask you to put the motion.

Resolved, That the thanks of the Association be tendered the retiring President, Superintendent Nathan C. Schaeffer, of Pennsylvania, and J. N. Wilkinson, of Kansas, the retiring Treasurer, for the faithful and efficient services which they have rendered the Association during the past two years.

The Secretary put the motion which was unanimously carried by a rising vote of the entire convention.

Chairman Van Liew then presented a resolution authorizing the President to appoint a committee of two to attend a conference to be held at Middle Bass Island, Lake Erie, in the first week in August, by the National Tax Commission, the National Mercantile Commission, and the National Grange, for the purpose of considering child-labor and compulsory education, including school taxation and instruction in rural schools.

On motion of Chairman Van Liew the resolution was adopted. President Schaeffer appointed Superintendent W. H. Elson, of Cleveland, Ohio, and President-elect E. G. Cooley, of Chicago, Illinois, as the committee representing the National Education Association.

Alexander Hogg, of Texas, presented the following resolution and moved its adoption:

WHEREAS, Our social equilibrium seems to be very unstable, as appears in strikes and other evidences of dissatisfaction upon the part of one class of our citizens in opposition to another class, and

WHEREAS, there is a wide and deep estrangement between those who labor with both their hands and brains, and those who labor with their brains alone, and

WHEREAS, this estrangement has grown into open defiance of the right and security of property, and

WHEREAS, peace at home, good feeling among our own citizens, should be first sought and first cultivated, and our youth should be instructed in this direction, therefore

Be it resolved, That it is the sense of this association, that it is the duty of the teachers, of this Republic, to enter at once upon a systematic source of instruction, which shall embrace not only a broader patriotism, but a more extended course of moral instruction, especially in regard to the rights and duties of citizenship, the right of property, and the security and sacredness of human life.

Upon motion the resolution was adopted by vote of the convention.

The president appointed E. O. Lyte of Pennsylvania and W. A. Edwards, of Californial to escort President-elect Edwin G. Cooley to the platform.

PRESIDENT SCHAEFFER: President Cooley, the teachers of America have watched with admiration the battles for good schools that you have for years been fighting, and they have shown their appreciation by electing you President of this Association. I now hand to you this gavel as the symbol of authority, with the hope that you will receive from the members the same loyal support that has been given to your predecessor. I now take pleasure in introducing to the convention President-elect Edwin G. Cooley of the National Education Association of the United States.

PRESIDENT COOLEY: Mr. President, ladies and gentlemen: It is certainly an honor to be prized by any schoolmaster, to be selected as presiding officer by this great body. I am more than appreciative of the honor that has been conferred. I cannot expect to have the opportunities, even if I had the power and ability, to push to a successful close, as many great enterprises as have fallen to my predecessor. I feel that we cannot express too highly our appreciation of what he has done.

I hope that I shall see the teachers of the East as well as the West at the next meeting. I shall do all in my power to bring about a successful convention in 1908. I cannot say more at this time. I thank you for the very kind reception you have given me.

After the singing of "America," under the leadership of James A. Foshay, of Los Angeles, the President declared the convention adjourned *sine die*.

IRWIN SHEPARD, *Secretary*.

BUSINESS SESSION—12 M., WEDNESDAY, JULY 10, 1907

MINUTES OF THE ANNUAL MEETING OF THE ACTIVE MEMBERS OF THE NATIONAL EDUCATIONAL ASSOCIATION

The meeting was called to order by President Nathan C. Schaeffer, at 12 M., in Choral Hall of the Temple Auditorium.

PRESIDENT SCHAEFFER: The first business on the docket is the twenty-first annual report of the Board of Trustees which has been approved by the Board of Directors. This report is in print, and will be distributed. It will not be read unless request is made. The usual action is to accept the report, and to order it printed in the volume of *Proceedings*. (Copies of the report were distributed to the members.)

S. T. BLACK, of California: I move that the report be accepted and printed in the volume of *Proceedings*. Motion was carried, and it was so ordered.

PRESIDENT SCHAEFFER: Next on the docket is the annual report of the Treasurer, which has been approved by the Board of Trustees and the Board of Directors. The report will now be distributed, and similar action is in order with reference to this report. (Copies of the report were distributed.)

GEORGE H. STOUT, of Pennsylvania: I move that the report be accepted and printed in the volume of *Proceedings*. Motion carried and so ordered.

PRESIDENT SCHAEFFER: Third is the report of the Secretary. This has been approved by the Board of Directors as printed, and will be distributed to the members. (Copies of the report were distributed.)

E. E. SCRIBNER, of Michigan: I move that the report of the Secretary be received and printed in the volume of *Proceedings*. Motion was carried, and it was so ordered.

PRESIDENT SCHAEFFER: Next is unfinished business, and the first item under this heading is a report to the Board of Directors by the Board of Trustees on the act of incorporation, and the action of the Board of Directors on said report. The Board of Trustees were instructed by the active members and the Board of Directors at the Asbury Park meeting in 1905 to secure if possible the passage by Congress of a proposed bill granting the Association a national charter of incorporation. As you have been officially informed by the Secretary the act incorporating the Association was passed by Congress and approved by the president of the United States, June 30, 1906. We will hear the report of the Board of Trustees to the Board of Directors concerning this matter.

Secretary Shepard read the report and the recommendations of the Board of Directors as follows:

To the Board of Directors of the National Educational Association:

Gentlemen: The Board of Trustees respectfully report that pursuant to a resolution adopted at the annual business meeting of the Association, held on July 6, 1905, the Board made application to Congress for a special act in the form approved by the Association at said meeting, to incorporate an association to be known as the "National Education Association of the United States" to succeed and continue the National Educational Association.

The Board further report that said act was passed by both houses of Congress with some technical amendments, not affecting the substance, and was approved by the President and became a law on June 30, 1906. The act provides that it shall take effect when the charter thereby granted is accepted and when by-laws are adopted by the members of the present Association.

The Board is of the opinion that the new charter, a copy of which is attached, offers the Association great advantages in assuring to it perpetuity of existence and a national character, in safeguarding its funds, and generally by increasing its powers and influence, and therefore unanimously recommends that the charter be accepted and that by-laws be adopted in accordance with the provisions of this act.

Respectfully submitted,
NICHOLAS MURRAY BUTLER, *Chairman*,
J. M. GREENWOOD,
NATHAN C. SCHAEFFER,
Trustees.

RESOLUTIONS ADOPTED AT A MEETING OF THE BOARD OF DIRECTORS HELD AT LOS ANGELES, CAL., JULY 8, 1907

Resolved, That the Board of Directors accept the report of the Board of Trustees and unanimously approve the recommendations therein contained;

Resolved, That the Board of Directors recommend the adoption by the Association of the following resolutions:

1. *Resolved*, That the National Educational Association hereby accepts the charter granted by an act of Congress entitled "An Act to Incorporate the National Education Association of the United States," passed June 30, 1906, and that the President and Secretary of this meeting be authorized and directed to execute and file with the recorder of deeds of the District of Columbia a verified certificate showing the acceptance by the Association of the charter granted by said act.

2. *Resolved*, That the proposed by-laws, of which notice was given at the annual meeting of the Association held on July 6, 1905, which are printed in full in the journal of said meeting, be and the same are hereby adopted to take effect immediately.

3. *Resolved*, That the Association adopt as its corporate seal a circle containing the title "National Education Association of the United States," and the dates "1857–1907."

4. *Resolved*, That the Association do now proceed to elect officers, and to organize under the charter granted by the act of Congress.

(Copies of the Report, of the Act of Incorporation and of other papers relating thereto were distributed to the members.)

O. J. CRAIG, of Montana: I move that this report of the Board of Trustees and the recommendations of the Board of Directors be received. The motion was carried without an opposing vote.

CHARLES H. KEYES, of Connecticut: I move the adoption of the report of the Board of Trustees and of the resolutions thereon, passed by the Board of Directors. The motion was seconded.

MR. BLACK, of California: I propose that we consider these resolutions separately and, with Mr. Keyes's permission, I move the adoption of resolution No. 1. The division of the question was agreed to by Mr. Keyes.

PRESIDENT SCHAEFFER: It has been moved and seconded that resolution No. 1 be adopted. Are you ready for the question?

MISS ELIZABETH SHIRLEY, of California: Mr. President, I rise to take exceptions to section seven of the Act of Incorporation so far as it refers to the finances of the Association. I see that the permanent funds of the Association are by this section placed in the hands of the trustees. Now, of course, the money belongs to us; it is the teachers' money. I see that the trustees alone can make recommendations for the expenditure of these funds; that such recommendation can be referred to the active members for approval and if it is carried by a three-fourths vote of active members it is to be returned to the directors and they have the power to strike out and nullify the action of the members. That is, we leave the initiative and the referendum in the hands of committees.

Now, I stand for democracy. I stand for this National Educational Association as an association *of* the teachers, and *for* the teachers, and *by* the teachers, and I think that the provision referred to in section seven would be unsafe. I think that it would be unbusiness-like, and I think it would be undemocratic. We call the United States a democratic government, yet we would put our finances into the hands of a committee who will dictate to us what we shall do with them. Now, men, they say, are masters of their fortunes. You pass this motion accepting the act of Congress and the members of the National Educational Association of the United States will not be masters of their fortunes, so far as their finances are concerned. We shall have erected an oligarchy from under whose dominion we may peer about and find ourselves dishonored. It is unsafe, because it puts the power all in the hands of a few trustees and we, the people, have nothing whatever to say about what shall be done with our own money.

It is true, and "pity 'tis, 'tis true" that graft, as you know, is stalking through the American cities. Not in California alone; California is a kindergarten to what some of the cities in the east are. Go into the great cities; go into Chicago, Milwaukee, Omaha, New York, and Philadelphia, Mr. President, and you will find the grafter there with his money bags debauching the trustees and the school boards; buying special privileges. You will see the great American concern, with its thirty pieces of silver, buying the superintendents and forcing them up into high places.

Now, are we safe in running the risk of putting our property, our money, into the hands of people who may be bought and sold?

Voice from the audience: You elect your committees, trust them.

PRESIDENT SCHAEFFER: The lady has the floor.

MISS SHIRLEY: I say that it is undemocratic, and even if we were assured that every dollar of our money would be righteously administered, it is unbusiness-like. We profess to teach the pupils of America business principles. When they pick up this constitution they will see that the teachers are not capable of directing their own business, but have to put it into the hands of committees who will do the work for them. Now, if you can find in the confines of this great American country, any business man who will conduct his business on the principles of that section, I shall be surprised. Shall the teachers tie their hands and give their money into the hands of a committee? Shall they have no voice whatever in the administration of their money, or say what shall be done with it?

Now, we are to go out and teach business principles. If we are unable to take care of our own business, how can we stand up before the youth of America and talk to them about business principles? How can we face these pupils and talk of democracy when we put the initiative and the referendum into the hands of a committee? Let us vote down

this resolution, so that we can look the youth of America in the face when we talk of democracy. It is a fact that we need to guard the teachers of America in every way, and we should never, in our own business, adopt a measure that is so undemocratic. Mr. President, I thank you.

The "question" was called for by many members.

PRESIDENT SCHAEFFER: Are there further remarks? All in favor of the adoption of the first resolution read in your hearing say "aye;" (An apparently unanimous response of ayes). Opposed, "no." (No opposing vote was heard.)

PRESIDENT SCHAEFFER: The ayes have it. The resolution is adopted and the charter granted by act of Congress has been accepted and adopted by a unanimous vote of the active members of the National Educational Association.

It was moved and seconded that the second resolution be adopted. The motion was carried without opposing vote and the president declared the proposed by-laws adopted without amendment by unanimous vote.

On motion the third and fourth resolutions were successively carried by unanimous vote.

On motion of Mr. Greenwood, of Missouri, seconded by Mr. Carr, of Ohio, the four resolutions recommended by the Board of Directors were then adopted as a whole.

Joseph Swain, of Pennsylvania, chairman of the Committee on Nominations, being called upon by the chair, presented the report of that Committee as follows:

To the Active Members of the National Education Association:

Your Committee on Nominations begs leave to report the following nominations for officers of the National Education Association for the ensuing year, viz:

President	EDWIN G. COOLEY	Illinois
First Vice-President	NATHAN C. SCHAEFFER	Pennsylvania
Second Vice-President	W. H. ELSON	Ohio
Third Vice-President	CHARLES H. JUDD	Connecticut
Fourth Vice-President	H. A. USTRUD	South Dakota
Fifth Vice-President	J. F. STILWELL	Arizona
Sixth Vice-President	JOSEPH H. HILL	Kansas
Seventh Vice-President	W. A. CLARK	Nebraska
Eighth Vice-President	WALTER M. KERN	North Dakota
Ninth Vice-President	WILBUR F. GORDY	Massachusetts
Tenth Vice-President	J. F. KINGSBURY	Utah
Eleventh Vice-President	ELLSWORTH ROBEY	Indiana
Twelfth Vice-President	JAMES H. BAKER	Colorado
Treasurer	ARTHUR H. CHAMBERLAIN	California

DIRECTORS

Alabama	ISAAC W. HILL	Opelika
Arizona	A. J. MATTHEWS	Tempe
Arkansas	GEORGE B. COOK	Hot Springs
California	JAMES A. BARR	Stockton
Colorado	CHARLES E. CHADSEY	Denver
Connecticut	CHARLES H. KEYES	Hartford
Delaware	GEORGE W. TWITMYER	Wilmington
District of Columbia	W. T. HARRIS	Washington
Florida	MISS CLEM HAMPTON	Tallahassee
Georgia	WILLIAM M. SLATON	Atlanta
Idaho	S. BELLE CHAMBERLAIN	Boise
Illinois	WALTER R. HATFIELD	Chicago
Indiana	THOMAS A. MOTT	Richmond
Indiana Territory	JOHN D. BENEDICT	Muskogee
Iowa	P. C. HAYDEN	Keokuk
Kansas	JOHN MACDONALD	Topeka
Kentucky	W. H. BARTHOLOMEW	Louisville
Louisiana	WARREN EASTON	New Orleans
Maine	PAYSON SMITH	Auburn
Maryland	M. BATES STEPHENS	Annapolis
Massachusetts	JOHN T. PRINCE	West Newton
Michigan	DAVID MACKENZIE	Detroit

Minnesota	S. L. Heeter	St. Paul
Mississippi	E. E. Bass	Greenville
Missouri	John R. Kirk	Kirksville
Montana	Oscar J. Craig	Missoula
Nebraska	George L. Towne	Lincoln
Nevada	J. E. Stubbs	Reno
New Hampshire	James E. Klock	Plymouth
New Jersey	John Enright	Freehold
New Mexico	William H. Decker	Gallup
New York	James C. Byrnes	New York
North Carolina	J. I. Foust	Greensboro
North Dakota	Neil C. Macdonald	Lidgerwood
Ohio	Henry G. Williams	Athens
Oklahoma	Ernest E. Balcomb	Weatherford
Oregon	J. H. Ackerman	Salem
Pennsylvania	John Morrow	Allegheny
Rhode Island	Walter Ballou Jacobs	Providence
South Carolina	David B. Johnson	Rock Hill
South Dakota	M. A. Lange	Pierre
Tennessee	I. C. McNeill	Memphis
Texas	Cree T. Work	Denton
Utah	William Allison	Ogden
Virginia	J. L. Jarman	Farmville
Washington	Edward T. Mathes	Bellingham
West Virginia	Thomas C. Miller	Charleston
Wisconsin	Charles P. Cary	Madison
Wyoming	Estelle Reel	Washington, D. C.
Vermont	Mason S. Stone	Montpelier

Respectfully submitted,

Joseph Swain, *Chairman.*

E. T. Fairchild
Secretary.

On motion of Mr. Carr, of Ohio, the report of the Committee on Nominations was received, and the Secretary was instructed to cast the ballot of the members present for the nominations as made. The Secretary reported the ballot cast as directed and the chairman announced the nominees elected as officers for the ensuing year.

President-elect Edwin G. Cooley, being called for, was invited to the rostrum and introduced by President Schaeffer. Mr. Cooley spoke briefly, expressing his high appreciation of the honor conferred by election to the office of president of the newly organized National Education Association of the United States and giving assurances that his best efforts would be directed, with the co-operation of the members, to bring about a successful convention in 1908.

C. G. Pearse, of Wisconsin: Mr. Chairman, I move that section two of article five of the by-laws of the National Education Association, adopted this date, be so amended as to read as follows:

Section 2. The Council shall consist of 120 members, selected from the membership of the Association. Any member of the Association identified with educational work is eligible to membership in the Council.

That section three of article five be amended so as to read as follows:

Section 3. The Board of Directors shall annually elect ten members, and the Council shall elect ten members, each member to serve for six years, or until his successor is elected.

Mr. Keyes, of Connecticut: I rise to a point of order. I think article eight of the by-laws just adopted provides for their amendment. This article reads that these by-laws may be amended at any annual meeting by the unaminous vote of the members present or by a two-thirds vote of the members present, provided that the alteration, or amendment, has been proposed in writing at a previous annual meeting. The motion is evidently not in order since the amendment has not been proposed in advance. I should like to have the opinion of the Counsel of the Board of Trustees on this point.

PRESIDENT SCHAEFFER: I think the active members will be pleased to hear the opinion of our Counsel, Mr. Pine, of New York, as to whether we should, or can, amend the by-laws before the Certificate of Incorporation has been filed, according to the requirements of the act of Incorporation.

MR. PINE, of New York: Mr. President; it is my opinion that under the by-laws, it is possible to adopt the amendment proposed by Mr. Pearse only by unanimous consent. I should think it would be more regular that notice be given at this meeting in order that the proposed amendment might come before the next annual meeting.

MR. PEARSE: Mr. Chairman, in view of the opinion of Mr. Pine, I will give the notice, as suggested, and let the matter lie over until the next annual meeting.

PRESIDENT SCHAEFFER: Notice is given by Mr. Pearse of the proposed amendment which will come up for action at the next year's meeting.

MR. BAKER, of Colorado: I rise to speak, representing the National Association of State Universities, preliminary to the introduction of a resolution. As it is important that a preliminary explanation be made, I trust that the Chair will be willing to waive the formality of reading the resolution first.

At the meeting of the National Association of State Universities held in Baton Rouge, last November, a report on the question of a national university was made, and the recommendations of the committee on that subject were unanimously adopted. A standing committee was appointed to further the cause, consisting of President Edmund J. James, of the State University of Illinois, President W. O. Thompson, of the State University of Ohio, and President Brown Ayres, of the University of Tennessee. This committee was instructed to ask the National Educational Association to appoint a committee to further the cause of a national university, or of some kind of organization which would enable the students of this country to use the many facilities in Washington which are extremely valuable in original research.

We understand that the Association has for a long time been committed to the idea of some kind of an organization at Washington that would facilitate the use of the valuable and extensive government collections. We are not asking that a committee of investigation be appointed, but a committee to appeal to Congress to take up the matter and investigate it, and in doing so, to co-operate with the movement that has been organized by the Association of State Universities. The last investigation shows two things: first, that the facilities there available for the scholars of this country, and of the world, can be enumerated under some seventy distinct heads, with many subdivisions under some of these heads, and that here is an opportunity to promote one of America's greatest educational interests.

With this explanation, I will give way to President W. O. Thompson, the only member of that standing committee present, who will offer the resolution.

PRESIDENT SCHAEFFER: President Thompson has the floor.

MR. THOMPSON, of Ohio: Mr. Chairman, the explanation which has been made by President Baker is a sufficient introduction of the resolution which I shall now offer and which has been drawn up in accordance with the instructions of the Association of State Universities as follows:

WHEREAS, The National Association of State Universities in session November, 1906, took action looking toward the establishment of a graduate university owned and controlled by the federal government, and appointed a permanent committee to aid the cause and to present the matter to the National Educational Association, and to urge the naming of a committee instructed to co-operate in securing a national university; therefore be it

Resolved, That we, the active members of the National Educational Association reaffirm the previous declarations of this Association concerning the establishment of a graduate university at Washington, D. C., and express our belief in the wisdom of such a university, or some form of organization that shall utilize for research the facilities assembled in Washington, to be owned and controlled by the federal government; that a committee of three be appointed to promote the cause; and that an appropriation not to

exceed $500 be recommended to the directors to provide for the necessary expenses of the committee.

I move the adoption of the resolutions as read. It was seconded and carried.

On motion, the resolution was then referred to the new Board of Directors with request that the desired appropriation of $500 be granted for the expenses of the Committee.

PRESIDENT SCHAEFFER: The Board of Directors, whose term expires tomorrow, adjourned on Monday last to meet at the call of the chairman should a meeting be necessary. The chair finds that no such meeting is necessary, therefore no meeting will be held. The new Board of Directors will hold its first business meeting at 4:30 P. M., Thursday, July 11, in the Children's Hall of the Temple Building.

MR. HARVEY, of Wisconsin: At the last meeting of active members at Asbury Park, in July, 1905, amendments were proposed to the by-laws as they then existed, which have not yet been acted upon. I believe this is a proper matter for consideration at this time and therefore move that these proposed amendments be laid on the table. The motion was carried and it was so ordered.

There being no other business, a motion to adjourn was made and carried and the chairman declared the annual meeting of active members adjourned.

IRWIN SHEPARD, *Secretary.*

PROCEEDINGS OF THE BOARD OF DIRECTORS FOR 1906–1907

The annual meeting of the Board of Directors was called to order in Children's Hall of the Auditorium Building, Los Angeles, California, at 11:00 A. M., July 8, 1907, by President Nathan C. Schaeffer. The following Directors responded to roll-call:

Jasper N. Wilkinson, Kansas; Irwin Shepard, Minnesota; J. M. Greenwood, Missouri; W. T. Harris, District of Columbia; Eliphalet Oram Lyte, Pennsylvania; Charles H. Keyes, Connecticut; L. D. Harvey, Wisconsin; Miss Clem Hampton, Florida; W. H. Bartholomew, Kentucky; L. E. Wolfe, Texas; George B. Cook, Arkansas; John D. Benedict, Indian Territory; Wells L. Griswold, Ohio; T. A. Mott, Indiana; George L. Towne, Nebraska; Oscar J. Craig, Montana; J. E. Stubbs, Nevada; Edward T. Mathes, Washington; A. H. Chamberlain, California; Nathan C. Schaeffer, Pennsylvania.

Present, twenty directors.

The reading of the minutes of the last meeting, held July 6, 1905, was, on motion, dispensed with, and the minutes were approved as printed in the volume of *Proceedings* of the Asbury Park meeting.

The Secretary announced the formal resignation of certain directors. On motion, the following directors were elected to fill the vacancies:

E. E. Balcomb, of Oklahoma, to succeed Richard V. Temming, resigned.
W. M. Kern, of North Dakota, to succeed P. G. Knowlton, resigned.
John MacDonald, of Kansas, to succeed L. D. Whittemore, resigned.
S. Belle Chamberlain, of Idaho, to succeed A. G. Sears, resigned.
Henry D. Sheldon, of Oregon, to succeed E. D. Ressler, resigned.
Charles H. Ames, of Massachusetts, to succeed Henry T. Bailey, resigned.
Joseph Swain, of Pennsylvania, to succeed John W. Lansinger, resigned.
W. R. Hatfield, of Illinois, to succeed C. M. Bardwell, resigned.
I. C. McNeill, of Tennessee, to succeed Eugene F. Turner, resigned.
Mrs. Helen L. Grenfell, of Colorado, to succeed L. C. Greenlee, resigned.
S. L. Heeter, of Minnesota, to succeed A. W. Rankin, resigned.
John R. Kirk, of Missouri, to succeed W. J. Hawkins, resigned.

Total number of directors present at this meeting, thirty-two.

The Twenty-first Annual Report of the Board of Trustees for the year July 1, 1906, to June 30, 1907, was presented and printed copies of the same were distributed to the directors. On motion of Director J. M. Greenwood, the reading of the report was dispensed with and the report was approved and ordered printed in the annual volume of *Proceedings*.

The reports of the Treasurer, J. N. Wilkinson, of Emporia, Kan., for the years 1905–06 and 1906–07 were presented. The report for the first of the two years was adopted as printed in the anniversary volume. The report for 1906–07 was read in full and on motion was referred to the Board of Trustees for audit and approval.

The report of Secretary, Irwin Shepard, embodying a review of the reports of the Secretary from 1893 to 1907 was next presented and printed copies of the same were passed to the directors. On motion, the reading of the report was dispensed with and the report was approved as printed in the anniversary volume.

Secretary Shepard then made a brief statement with regard to railroad rates to the effect that certain questions remained unsettled between the Association and the railroads of the Trans-Continental Association regarding the expense of validation of the tickets or return of National Educational Association members at Los Angeles. Since the question was a complicated one the Secretary advised that it be referred to a committee for

negotiation and settlement. On motion of Director L. D. Harvey, of Wisconsin, the entire question of validation and other expenses was referred to the Executive Committee and Board of Trustees with power to act.

The Secretary then called attention to the action of the Board of Directors at its meeting July 4, 1905, receiving the petition of Louis C. Monin, dean of the Armour Institute of Technology, and others, for the organization of a new department of the National Educational Association to be known as the Department of Technical Education. This petition was referred to the Executive Committee of the Association with power to act. The Secretary reported that the Executive Committee at its meeting in Louisville, Ky., Feb. 28, 1906, voted to approve the petition and to authorize the establishment of the Department of Technical Education. On motion the action of the Executive Committee was approved by the Board of Directors.

In the absence of the chairman of the Board of Trustees, Nicholas Murray Butler, of New York, J. M. Greenwood, of Missouri, secretary of the Board, read the following special report of the Trustees:

To the Board of Directors of the National Educational Association.

Gentlemen: The Board of Trustees respectfully report that pursuant to a resolution adopted at the annual business meeting of the Association, held on July 6, 1905, the Board made application to Congress for a special act in the form approved by the Association at said meeting, to incorporate an association to be known as the "National Education Association of the United States" to succeed and continue the National Educational Association.

The Board further report that said act was passed by both houses of Congress with some technical amendments, not affecting the substance, and was approved by the President and became a law on June 30, 1906. The act provides that it shall take effect when the charter thereby granted is accepted and when by-laws are adopted by the members of the present Association.

The Board is of the opinion that the new charter, a copy of which is attached, offers the Association great advantages in assuring to it perpetuity of existence and a national character, in safeguarding its funds and generally by increasing its powers and influence, and therefore unanimously recommends that the charter be accepted and that by-laws be adopted in accordance with the provisions of this act.

Respectfully submitted,
NICHOLAS MURRAY BUTLER, *Chairman,*
J. M. GREENWOOD,
NATHAN C. SCHAEFFER,
Trustees.

On motion of Director John R. Kirk, of Missouri, the report was accepted and the following resolutions were unanimously adopted.

Resolved, That the Board of Directors accept the report of the Board of Trustees and unanimously approve the recommendations therein contained;

Resolved, That the Board of Directors recommend the adoption by the Association of the following resolutions:

1. *Resolved*, That the National Educational Association hereby accepts the charter granted by an act of Congresss entitled "An Act to incorporate the National Education Association of the United States," passed June 30, 1906, and that the President and Secretary of this meeting be authorized and directed to execute and file with the recorder of deeds of the District of Columbia a verified certificate showing the acceptance by the Association of the charter granted by said act.

2. *Resolved*, That the proposed by-laws of which notice was given at the annual meeting of the Association held on July 6, 1905, which are printed in full in the journal of said meeting, be and the same are hereby adopted to take effect immediately.

3. *Resolved*, That the Association adopt as its corporate seal a circle containing the title "National Education Association of the United States," and the dates "1857–1907."

4. *Resolved*, That the Association do now proceed to elect officers, and to organize under the Charter granted by the Act of Congress.

The Chairman stated as the next order of business the election of three trustees to fill vacancies as follows:

One Trustee to succeed Nicholas Murray Butler, for the term to expire 1910.

One Trustee to succeed N. C. Dougherty, resigned, for the term to expire 1908.

One Trustee to succeed Albert G. Lane, deceased, for the term of three days to expire July 11, 1907.

On motion, Nicholas Murray Butler, of New York, was unanimously elected to succeed himself for the term to expire July, 1910.

The names of C. G. Pearse, of Wisconsin, and E. G. Cooley, of Illinois, were put in nomination to succeed N. C. Dougherty, resigned. An election by ballot was ordered. Charles H. Keyes, of Connecticut, and A. H. Chamberlain, of California, acted as tellers. The ballot resulted in C. G. Pearse receiving fifteen votes and E. G. Cooley fourteen.

The Chairman announced the election of C. G. Pearse as trustee to succeed N. C. Dougherty, resigned, for the term to expire 1908.

H. B. Brown, of Indiana, was on motion elected to succeed Albert G. Lane, deceased, for a term of three days to expire Thursday, July 11, 1907.

The following communication was read by the secretary:

Los Angeles, Cal., July 8, 1907

To Irwin Shepard, Secretary, National Educational Association,

Dear Sir: I have the honor to submit, herewith, a petition signed by twenty-eight prominent educators, who are active members of the National Educational Association, asking the privilege of organizing a department of the National Educational Association to be known as the Department of Rural and Agricultural Education, and to request that you will present this petition to the Board of Trustees of the National Educational Association for action during the present convention of the Association.

Very respectfully,

DICK J. CROSBY,
Department of Agriculture,
Washington, D. C.

APPLICATION

To the Board of Trustees of the National Educational Association:

In view of the widespread and active interest in the improvement of rural schools and in the development and extension of instruction in agriculture and the allied subjects of nature-study and school-gardening in the colleges and public schools of this country, and in view of the fact that there is now no national organization of teachers for the discussion of rational methods of instruction in these subjects, the undersigned active members of the National Educational Association respectfully request permission to form a Department of Rural and Agricultural Education co-ordinate with the other regularly constituted departments of this Association.

Very respectfully,

JOHN L. ALGER, principal, Vermont Academy, Saxtons River, Vt.
E. BENJ. ANDREWS, chancellor, State University of Nebraska, Lincoln, Neb.
BROWN AYRES, president, University of Tennessee, Knoxville, Tenn.
L. H. BAILEY, director, College of Agriculture, Cornell University, Ithaca, N. Y.
W. A. BALDWIN, principal, Hyannis State Normal School, Hyannis, Mass.
CHARLES E. BESSEY, professor of botany, university of Nebraska, Lincoln, Neb.
E. C. BISHOP, deputy state superintendent of public instruction, Lincoln, Neb.
ERNEST BURNHAM, director, rural school department, Western State Normal School, Kalamazoo, Mich.
KENYON L. BUTTERFIELD, president, Massachusetts Agricultural College, Amherst, Mass.
W. T. CARRINGTON, state superintendent of public schools, Jefferson City, Mo.
P. P. CLAXTON, professor of education, University of Tennessee, Knoxville, Tenn.
FASSETT O. COTTON, state superintendent of public instruction, Indianapolis, Ind.
DICK J. CROSBY, U. S. Department of Agriculture, Washington, D. C.
DELOS FALL, professor of chemistry, Albion College, Albion, Mich.
H. B. FRISSELL, principal of Hampton Normal and Agricultural Institute, Hampton, Va.
FRANK H. HALL, secretary, Illinois Farmers Institute, Aurora, Ill.
L. D. HARVEY, superintendent of schools, Menomonie, Wis.
W. M. HAYS, assistant secretary of agriculture, Washington, D. C.
R. H. JESSE, president, State University of Missouri, Columbia, Mo.
J. Y. JOYNER, state superintendent of public instruction, Raleigh, N. C.

O. J. KERN, superintendent of schools, Winnebago Co., Rockford, Ill.
JOHN R. KIRK, president, State Normal School, Kirksville, Mo.
WILLIAM R. LAZENBY, professor of horticultural forestry, Ohio State University, Columbus, O.
THOS. C. MILLER, state superintendent of schools, Charleston, West Va.
J. L. SNYDER, president, State Agricultural College, Lansing, Mich.
W. J. STEVENS, principal, Eugene Field School, St. Louis, Mo.
A. B. STORMS, president, Iowa State College, Ames, Iowa.
GEO. H. WHITCHER, superintendent of schools, Berlin, N. H.

On motion, the petition was received and authority was granted to the petitioners to organize a new department of the National Educational Association to be known as The Department of Rural and Agricultural Education.

The Secretary presented a communication from Reuben Post Halleck, chairman of the Committee of Seventeen on Professional Preparation of High-School Teachers. This communication transmitted to the Board of Directors the report of the Committee with the request that it be printed and that appropriation be made for certain expenses which had already been incurred by the Committee. On motion, the communication and accompanying report was referred to the Department of Secondary Education for recommendation to the new Board of Directors.

A communication was received from Director James H. Canfield, of New York, submitting a petition for the appointment of a committee of investigation of the relations of the home to the school and of home economics. On motion of A. H. Chamberlain the petition was referred to the Committee on Investigations and Appropriations of the National Council.

There being no further business the Board of Directors adjourned subject to the call of the President if it should be found necessary to hold another meeting of the Board.

IRWIN SHEPARD, *Secretary.*

PROCEEDINGS OF THE NEW BOARD OF DIRECTORS FOR 1907–1908

The meeting of the new Board of Directors of the National Education Association for the year 1907–8 was called to order by President E. G. Cooley, at 4:30 P. M., July 12, 1907, in Children's Hall, Temple Auditorium, Los Angeles, Cal.

The following Directors responded to the call of the roll:

E. G. Cooley, Illinois; Nathan C. Schaeffer, Pennsylvania; Arthur H. Chamberlain, California; Irwin Shepard, Minnesota; J. M. Green, New Jersey; J. M. Greenwood, Missouri; Eliphalet Oram Lyte, Pennsylvania; George B. Cook, Arkansas; James A. Barr, California; Charles E. Chadsey, Colorado; Charles H. Keyes, Connecticut; Miss Clem Hampton, Florida; S. Belle Chamberlain, Idaho; Thomas A. Mott, Indiana; John D. Benedict, Indian Territory; John MacDonald, Kansas; W. H. Bartholomew, Kentucky; David MacKenzie, Michigan; S. L. Heeter, Minnesota; John R. Kirk, Missouri; Oscar J. Craig, Montana; George L. Towne, Nebraska; W. H. Decker, New Mexico; N. C. MacDonald, North Dakota; Henry G. Williams, Ohio; E. E. Balcomb, Oklahoma; John Morrow, Pennsylvania; D. B. Johnson, South Carolina; I. C. McNeill, Tennessee; Cree T. Work, Texas; William Allison, Utah; Charles P. Cary, Wisconsin, Estelle Reel, Wyoming.

Directors present, thirty-three.

PRESIDENT COOLEY: The first order of business is a communication from the Department of Secondary Education, concerning the report of the Committee on the Professional Preparation of Teachers which was referred to that department by the Board of Directors at its meeting July 8, with request that it be reported back to this Board at this time with recommendations.

The secretary read the communication as follows:

To the Board of Directors of the National Educational Association:

The Departments of Secondary Education of Normal Schools, and of Higher Education have had under consideration the report of the committee appointed by the Secondary Department at its meeting in Asbury Park, July, 1905, on the Preparation of Teachers for Secondary Schools and said departments jointly recommend that the report be approved and ordered printed by the Board of Directors, both in the volume of *Proceedings* of this meeting, and also in pamphlet form convenient for distribution. Also that an appropriation of $30 be made to reimburse the committee for clerical expenses in preparing the report.

(Signed) EUGENE W. LYTTLE,
President, Department of Secondary Education.

DIRECTOR BARTHOLOMEW, of Kentucky: I move that the recommendation be concurred in, that the report be printed as recommended. The motion was carried, and it was so ordered.

Secretary Shepard reported that the following resolutions and request for an appropriation had been referred to this Board by the Active Members of the Association as follows:

Extract from minutes of meeting of active members held July 10, inst.

. . . . . .

W. O. Thompson, of Ohio, offered the following resolution and moved its adoption:

WHEREAS, The National Association of State Universities in session November, 1906, took action looking toward the establishment of a graduate university owned and controlled by the federal government, and appointed a permanent committee to aid the cause and to present the matter to the National Educational Association, and to urge the naming of a committee instructed to co-operate in securing a national university, therefore be it

Resolved, That we, the active members of the National Educational Association,

reaffirm the previous declarations of this Association concerning the establishment of a graduate university at Washington, D. C., and express our belief in the wisdom of such a university, or some form of organization that shall utilize for research the facilities assembled in Washington, to be owned and controlled by the federal government; that a committee of three be appointed by the President of the Association to promote the cause; and that an appropriation not to exceed $500 be recommended to the directors to provide the necessary expenses of the committee.

The motion was duly seconded and carried. On motion, the resolution was referred to the new Board of Directors with the request that the desired appropriation of $500 be granted for the expenses of the committee.

. . . . . .

DIRECTOR J. M. GREEN, of New Jersey: I move that this matter be laid over until the next meeting and that when presented again it be accompanied by a review of what the Association has already done in the direction of the resolution presented. I know that there was for many years a standing committee on this subject and that much work was done. Doubtless a review of the work of this committee would be a valuable guide. (Seconded.)

DIRECTOR O. J. CRAIG, of Montana: This movement comes from the National Association of State Universities and was adopted by that Association at its session in Baton Rouge, La., in November last. The purpose of this resolution is to secure the indorsement and co-operation of the National Education Association as stated by President Baker, of Colorado, yesterday in the meeting of Active Members.

DIRECTOR J. M. GREENWOOD, of Missouri: I hope that the motion to postpone will not prevail, but that action may be deferred until the report of the Committee on Investigations and Appropriations be received since the matter will be included in that report.

The motion to postpone until the next meeting was withdrawn by Director Green with consent of the one who seconded the motion. It was then moved and carried that action on the matter be delayed until the report of the Committee on Investigations and Appropriations of the National Council had been presented.

DIRECTOR N. C. SCHAEFFER, of Pennsylvania: Section eight of the newly adopted charter of the Association provides that the principal office of the corporation shall be in the city of Washington, D. C. This is in accordance with the usual requirements for all associations or corporations organized by special act of Congress. This does not, however, prevent the Association from maintaining an office or offices elsewhere within the United States for the transaction of business as may be determined by the Board of Directors or otherwise in accordance with the by-laws. I therefore offer the following resolution and am authorized to state that Dr. W. T. Harris has kindly tendered the use of his residence on Fairmont Street in the city of Washington as the principal office of the Association:

Resolved, That pursuant to section eight of the charter, 1360 Fairmont Street, N. W., in the city of Washington, D. C., be, and the same is hereby designated as, the principal office of the National Education Association of the United States, and that the Honorable W. T. Harris be requested and authorized to act as the representative of the Association having charge of such office.

I move the adoption of the resolution. The motion was seconded and carried and it was so ordered.

DIRECTOR CHAS. H. KEYES, of Connecticut: I move that the office of the Secretary of the National Education Association of the United States be continued in the city of Winona, in the state of Minnesota as heretofore, and that this office shall be the executive office of the Association. The motion was seconded and carried.

DIRECTOR SCHAEFFER: The following resolution should be acted upon at this time in order to carry out the provisions of the new charter adopted at the meeting of active members yesterday.

Resolved, That the Board of Trustees be requested to have prepared a suitable design for the corporate seal of the National Education Association of the United States, and to submit the same at the meeting of the Board of Directors to be held in July, 1908.

I move the adoption of the resolution.

The motion was seconded and carried, and it was so ordered.

PRESIDENT COOLEY: The Secretary will read a communication from the National Council of Education.

The Secretary read the following communication:

Irwin Shepard, Secretary National Educational Association, Los Angeles, California:

Dear Sir: I am directed by the National Council of Education to submit through you to the Board of Directors the following report of the Committee on Investigation and Appropriations of said Council.

This report has been duly accepted and unanimously adopted by the Council.

(Signed) J. W. CARR,
Secretary, National Council of Education.

REPORT OF THE COMMITTEE ON INVESTIGATIONS AND APPROPRIATIONS TO THE NATIONAL COUNCIL OF EDUCATION

The Committee on investigations and appropriations submits the following report on such matters as have been regularly brought before it and recommends that investigations be made on each subject mentioned below. The Committee also recommends that the Board of Directors be requested to appropriate the amount of money asked for in order to defray the necessary expenses of each of the several committees suggested.

(1) That the sum of five hundred dollars ($500), or so much thereof as may be necessary, be appropriated to make a preliminary inquiry into the contemporary judgment as to the culture element in education, and the time that should be devoted to the combined school and college course and that the president of the Council appoint a committee of five to make a report at some future time to the National Council of Education on this subject.

(2) That the sum of five hundred dollars ($500), or so much thereof as may be necessary, be appropriated to defray the expenses of a committee to be appointed by the president of the Council to investigate and submit a tentative report on a system of teaching morals in the public schools of the United States.

(3) That the sum of five hundred dollars ($500) or so much thereof as may be necessary, be appropriated for the use of the Committee on Industrial Education for Rural Schools and that the present committee of five be reduced to three to be appointed by the president of the Council.

(4) That a committee be appointed by the president of the Council to consider and make a preliminary report on the shortage in the supply of teachers, conditions, causes and remedies, and that the sum of five hundred dollars ($500), or so much thereof as may be necessary, be appropriated to defray the expenses of this committee.

(5) That a committee be appointed by the president of the Council to consider and make a preliminary report on provisions for exceptional children in the public schools and that the sum of five hundred dollars ($500), or so much thereof as may be necessary, be appropriated to defray the expenses of this committee.

J. M. GREENWOOD, *Chairman*,
FRANK A. FITZPATRICK,
ELMER E. BROWN,
LORENZO D. HARVEY,
Committee.

DIRECTOR JOHN R. KIRK, of Missouri: I move that the report of the Committee on Investigations and Appropriations of the Council be received, and that the several committees recommended be authorized and the corresponding appropriations granted. The motion was seconded by Director George B. Cook, of Arkansas.

SECRETARY SHEPARD: I desire to ask if the first resolution does not have reference to the same subject as is under consideration by a committee now in existence of which President Charles W. Eliot is chairman. This committee made a report of progress at the Asbury Park meeting, but has never been discharged. Will there not be confusion if a new committee is created while the former one is in existence?

DIRECTOR GREENWOOD: I am one of the five members of the committee of which President Eliot is chairman. This committee was appointed in 1903 to report on the

advisability of an investigation proposed by President Baker of the University of Colorado concerning the contemporary judgment as to the culture element and economy of time in education. The committee was unable to determine just what President Baker had in mind as the field for the proposed investigation. The committee made what it considered as a final, but not unanimous, report at the Asbury Park meeting. It was therefore thought advisable by the Committee on Investigations and Appropriations to appoint a new committee of which President Baker ought to be chairman.

On motion, it was ordered that each recommendation of the report should be voted upon separately.

After some discussion it was ordered that the recommendation for the appointment of a Committee of Investigation into the "Contemporary Judgment as to the Culture Element in Education and the Time That Should Be Devoted to Combined School and College Courses" be approved and that $500 be appropriated for the expenses of the committee.

On motion of Director Estelle Reel, of Wyoming, recommendation No. 2 was approved and $500 appropriated to defray the expenses of a committee to investigate and report on a "System of Teaching Morals in the Public Schools of the United States."

On motion of Director W. H. Bartholomew, of Kentucky, recommendation No. 3 was adopted and the sum of $500 appropriated for the use of the committee on "Industrial Education for Rural Schools." It was also ordered that the present committee of five should be reduced to a committee of three to be appointed by the president of the Council.

On motion, recommendation No. 4 was adopted and it was ordered that a committee be appointed by the president of the Council to report on the "Shortage in the Supply of Teachers, Conditions, Causes, and Remedies," and that the sum of $500 be appropriated for the expenses of the committee.

On motion, recommendation No. 5, providing for a committee to report on "Provisions for Exceptional Children in Public Schools," and an appropriation of $500 for the expenses of the committee was approved.

On motion of Director Greenwood the Committee on the Investigation, proposed by President Baker, as to the culture element in education of which President Eliot was chairman was discharged.

On motion of Director Greenwood the resolution concerning an appropriation for the expenses of a committee on a national university was again taken up for consideration. President James H. Baker, of the University of Colorado, being present, was recognized by the chair and made a brief explanation of the purposes of the proposed investigation and urged favorable action upon the recommendation of the active members that the proposed committee be appointed and the sum of $500 be appropriated for their expenses.

Following a discussion by Directors Prince, of Massachusetts; Greenwood, of Missouri; Towne, of Nebraska, and Craig, of Montana, the motion of Director Green of New Jersey was renewed that action on the question be deferred for one year. This motion being put to vote was lost.

On motion of Director O. J. Craig, of Montana, the resolution adopted by the active members was approved and $500 appropriated for the expenses of a Committee on a National University to be appointed by the President of the Association.

The chairman announced that the next order of business was the election of a trustee to serve four years to succeed H. B. Brown, of Indiana, whose term expires at this meeting.

Director T. A. Mott, of Indiana, nominated H. B. Brown to succeed himself as trustee for the term to expire 1911. Director Craig, of Montana, seconded the nomination and moved that the secretary be instructed to cast the ballot of the Board of Directors for H. B. Brown to succeed himself. This motion was seconded and carried. The ballot was so cast, and Mr. Brown was declared duly elected.

The chairman announced the next order of business to be the election of a member of the Executive Committee for the term of one year to succeed W. T. Harris, term expired.

L. D. Harvey, of Wisconsin, and W. T. Harris, of Washington, D. C., were nominated for this office.

On motion, it was ordered that the directors ballot for the election of the member of the Executive Committee. Directors C. P. Cary, of Wisconsin, and E. O. Lyte, of Pennsylvania, were appointed to act as tellers. The ballot resulted in W. T. Harris receiving nineteen, and L. D. Harvey fifteen, votes.

On motion, of Director Green of New Jersey, W. T. Harris was declared unanimously elected as a member of the Executive Committee to succeed himself.

President Cooley named as a committee on nominations of members of the National Council to fill vacancies: Directors J. M. Greenwood, of Missouri; Charles H. Keyes, of Connecticut; O. J. Craig, of Montana; William Allison, of Utah, and T. A. Mott, of Indiana. The Committee on request of its chairman were excused to prepare their report.

President Cooley announced the next order of business to be the consideration of invitations for the next convention.

On motion, the usual roll call of states was dispensed with and the chairman was directed to recognize a representative from the city of Cleveland, Ohio.

President F. H. Haserot, of the Cleveland Board of Education was introduced by President Cooley and addressed the convention at some length extending to the Board of Directors a cordial invitation from the city of Cleveland and various organizations of that city and of the state of Ohio to hold the next annual convention in that city.

After brief discussion on motion of Director Henry G. Williams, of Ohio, the following resolution was adopted:

Resolved, That this Board of Directors favors holding the next convention of the National Education Association in the city of Cleveland, Ohio, provided railway, hotel, and other arrangements are made satisfactory to the Executive Committee, and also provided that if the Executive Committee find it impossible to secure satisfactory railway rates and other arrangements for a meeting in the city of Cleveland, they are hereby authorized to select some other place.

Following this action Director C. P. Cary, of Wisconsin, announced that the city of Milwaukee desired to extend an invitation to the Board of Directors to hold the convention for 1909 in that city.

Director Charles E. Chadsey, of Colorado, announced that Denver invited the Directors to select that city for the convention in 1909.

Director John R. Kirk, of Missouri, announced that Kansas City would invite the Association to hold its meeting in that city in 1910.

Director W. R. Hatfield, of Illinois, announced that Chicago would like to have the convention for 1913.

President Cooley announced communications as the next order of business.

The Secretary read the following communication from the Department of Manual Training:

N. E. A. Headquarters, Los Angeles, Cal., July 11, 1907.

Mr. Irwin Shepard, Secretary National Education Association, City:

Dear Sir: I would respectfully inform you that it is the intention of the Department of Manual Training to create a committee for the purpose of investigating the subject of courses of study for elementary schools and to make request of the Board of Directors for an appropriation of $300 to $500 to defray necessary expenses.

This action will be accomplished by means of the following resolutions adopted at the meeting of the department this Thursday morning. It is probable that a committee will present the matter in person to the Board of Directors at its meeting Thursday afternoon.

FRANK M. LEAVITT
President, Department of Manual Training.

REPORT OF COMMITTEE ON RESOLUTIONS OF THE MANUAL-TRAINING DEPARTMENT OF THE NATIONAL EDUCATIONAL ASSOCIATION NOW IN SESSION, JULY 11, 1907

WHEREAS, The accumulative work of the department during the last two years seeking a more rational statement of courses of manual training, seems now to indicate a necessity for some definite work by a special committee.

Be it therefore resolved, That the manual-training department of the National Educational Association, now in session, recommend the appointment of a committee for the purpose of collecting data of the manual-training work done thruout this country, that suggestive courses adaptable to various conditions found therein, may be formulated by them.

Further be it resolved, That this committee consist of three persons now actively engaged in manual training, with power to add to their number, a superintendent of schools, a teacher of art, a child's study specialist, a grade teacher, and a representative from such other departments as may be deemed advisable to increase the efficiency of their work.

Be it further resolved, That the aforesaid committee of three be appointed by the president of this department.

Be it further resolved, That this committee be appointed for a term of two years, being requested to make a preliminary report at the next meeting of this association.

Resolved, That a committee of one be appointed by the president of this department to make formal application to the Board of Directors of the Association for an appropriation to defray the expenses of the committee.

Respectfully submitted,
CHAS. M. MILLER, Los Angeles, Cal., *Chairman*,
AUGUST AHRENS, Warrensburg, Mo.
ADA F. BLANCHARD, Los Angeles, Cal.
Committee on Resolutions.

DIRECTOR CREE T. WORK, of Texas: I have been appointed by the Committee of the Manual Training Department to urge favorable action on the report which you have just received from that department.

On motion, the application of the Department of Manual Training was received and approved and it was ordered that the desired committee be appointed by the president of the Department of Manual Training and that $500, or so much thereof as may be necessary, be appropriated for the expenses of that committee.

DIRECTOR E. ORAM LYTE, of Pennsylvania, presented the following petition and urged its adoption by the Board of Directors:

WHEREAS, At a conference held February 25, 1907, between the officers of the National Educational Association and representatives of six national organizations of women—the General Federation of Women's Clubs, the National Congress of Mothers, the Association of Collegiate Alumnae, the National Society of the Daughters of the American Revolution, the Women's Christian Temperance Union, the National Council of Jewish Women, and the Southern Association of College Women—the desirability of co-operation was recognized and certain "suggestions of principles of united work for the organizations represented" adopted; and,

WHEREAS, At said conference a committee consisting of W. W. Stetson, J. W. Olsen, E. H. Mark, Miss M. M. Abbott, Mrs. F. J. Scott, Mrs. Susanna Fry, Mrs. George C. Sikes, Mrs. Henry Solomon, and Miss E. A. Sharp was appointed to formulate the following petition:

"We petition the National Educational Association to provide for the organization of a department, to be known as the Educational Department of National Organizations of Women, in order that, by meeting each year with the National Educational Association, these national societies of women may co-operate more successfully with each other and with the educators of the country in bringing the home and the school into more helpful relation;"

Therefore, we the undersigned members of the National Educational Association respectfully urge that the said petition be granted and that provision be made for the organization of the department.

Elmer Ellsworth Brown
J. D. Burks
C. G. Pearse
J. F. Millspaugh
James H. Baker
J. A. Shawan
O. S. Westcott
Ella C. Sullivan
W. H. Elson
Mary G. Barnum
Helen L. Grenfell
Nathan C. Schaeffer
J. W. Olsen
A. W. Clancy
E. O. Vaile
Arthur H. Chamberlain
E. G. Cooley
J. M. Green
James H. Van Sicklé
J. A. Wood
G. E. Maxwell
L. E. Wolfe
E. C. Moore
Ella Flagg Young
Charles H. Keyes
E. O. Lyte
R. G. Boone
A. O. Thomas
Henry Suzzallo
Alexis F. Lange
H. W. Baker

On motion, the Board of Directors voted to approve the petition and to authorize the petitioners to organize a department to be known as the Educational Department of National Organizations of Women.

DIRECTOR JOHN MACDONALD, of Kansas: At a meeting of the Board of Directors in Washington in 1898, they adopted certain forms of spelling for twelve words. This action was carried by a vote of eighteen to seventeen. I think there are three members present in this Board of Directors who were present at that meeting. The change in spelling at that time affected twelve words. I now propose that action be rescinded so far as it applies to three of the twelve words. Nine years is sufficiently long to find out whether the American press and American people are going to follow the lead of the Board of Directors at its Washington meeting. During these nine years the American press has refused to have anything to do with these words. I therefore offer the following resolution and move its adoption:

Resolved: That the Secretary of the National Education Association be hereby instructed to use the standard spelling in the printing of the following words wherever they may occur in the *Proceedings* or in any other publications of the Association: *Through* in all its compounds and variations; *Thorough* in all its compounds and variations; *Though* in all its compounds and variations.

The resolution of Director MacDonald was adopted by a vote of twelve to eight, thirteen directors not voting.

The committee on the nomination of members of the National Council of Education reported through its chairman, Charles H. Keyes, of Connecticut, as follows:

To the Board of Directors of the National Education Association:

Your Committee on nominations of members of the National Council of Education recommends the following:

J. H. PHILLIPS, Birmingham, Alabama, to succeed himself, term expires 1912.
LIVINGSTON C. LORD, Charleston, Illinois, to succeed himself, term expires 1912.
JAMES H. BAKER, Boulder, Colorado, to succeed himself, term expires 1912.
C. C. VAN LIEW, Chico, California, to succeed himself, term expires 1912.
JAMES M. GREEN, Trenton, N. J., to succeed himself, term expires 1913.
AUGUSTUS S. DOWNING, Albany, New York, to succeed himself, term expires 1913.
E. H. MARK, Louisville, Kentucky, to succeed himself, term expires 1913.
T. A. MOTT, Richmond, Indiana, to succeed Calvin N. Kendall, term expires 1912.
GEORGE B. COOK, Hot Srings, Arkansas, to succeed A. R. Taylor, Decatur, Illinois, term expires 1913.
STRATTON D. BROOKS, Boston, Mass., to succeed Charles D. McIver, Greensboro, N. C., deceased, term expires 1913.
O. J. CRAIG, Missoula, Mont., to succeed Charles F. Thwing, Cleveland, Ohio, term expires 1908.
DAVID C. FELMLEY, Normal, Illinois, to succeed Albert G. Lane, Chicago, Ill., deceased, term expires 1908.
DAVID B. JOHNSON, Rock Hill, S. C., to succeed Wm. L. Bryan, Bloomington, Ind., term expires 1908.
BENJAMIN IDE WHEELER, Berkeley, California, to succeed Wm. R. Harper, Chicago, Ill., deceased, term expires 1909.

On motion, the report of the Committee on Nominations of members of the Council was accepted and adopted and the nominees were declared elected to the several terms indicated in the report.

There being no further business, the Board of Directors adjourned.

IRWIN SHEPARD, *Secretary.*

The following committees were appointed subsequent to the close of the convention in accordance with the authorization of the Board of Directors, as noted in foregoing minutes.

COMMITTEE ON A NATIONAL UNIVERSITY

BENJAMIN IDE WHEELER, president of the University of California.
JAMES B. ANGELL, president of the University of Michigan.
CHARLES VAN HISE, president of the University of Wisconsin.

COMMITTEE ON INDUSTRIAL EDUCATION FOR RURAL SCHOOLS

Lorenzo D. Harvey, superintendent of public schools and Stout training schools, Menominee, Wis., *chairman.*
Elmer Ellsworth Brown, United States commissioner of education, Washington, D. C.
O. J. Kern, superintendent of schools, Winnebago Co., Rockford, Ill.

COMMITTEE ON TEACHING MORALS IN THE PUBLIC SCHOOLS

James M. Greenwood, superintendent of schools, Kansas City, Mo., *chairman.*
Clifford W. Barnes, International Committee on Moral Training, Lake Forest, Ill., *chairman.*
Martin G. Brumbaugh, superintendent of schools, Philadelphia, Pa.
William L. Bryan, president University of Indiana, Bloomington, Ind.
J. W. Carr, superintendent of schools, Dayton, Ohio.

COMMITTEE ON SHORTAGE IN SUPPLY OF TEACHERS

I. C. McNeill, superintendent of Schools, Memphis, Tenn., *chairman.*
David Felmley, president State Normal School, Normal, Ill.
James M. Green, principal State Normal School, Trenton, N. J.
Chas. H. Keyes, superintendent of schools, Hartford, Conn.
James E. Russell, dean of Teachers College, New York City.

COMMITTEE ON PROVISIONS IN PUBLIC SCHOOLS FOR EXCEPTIONAL CHILDREN

James H. Van Sickle, superintendent of city schools, Baltimore, Md., *chairman.*
Andrew W. Edson, associate superintendent of city schools, New York City.
Frank Fitzpatrick, 93 Sumner St., Boston, Mass.
Carroll G. Pearse, superintendent city schools, Milwaukee, Wis.
Lloyd E. Wolf, superintendent of schools, San Antonio, Tex.

A committee on the culture element in education and also a committee on manual training (to be appointed by the Department of Manual Training) were also authorized but the names of the appointees had not been received at the time of going to press.

Irwin Shepard, *Secretary.*

GENERAL SESSIONS OF THE ASSOCIATION

ADDRESSES AND DISCUSSIONS

ADDRESS OF WELCOME

REV. ROBERT J. BURDETTE, PASADENA, CAL.

Mr. President, and Members of the National Educational Association:

In the name of all the people of the City of Our Lady of the Angels, I extend you a welcome as romantic as our past, as warm as our present, and as big as our future. Now don't get our present and future transposed. We have been homesick for you, ever since you came and went away, leaving memories of your visit, sweet as the perfume of pressed flowers in the pages of a cherished book. We have made ready for your coming. "Wisdom hath builded her house; she hath also furnished her table; she crieth upon the highest places of the city, Whoso is simple, let him turn in hither." And you have heard, and understood, and come. "As for him that is void of understanding," she saith to him, "Come eat of my bread." And I am here to partake of her feast of good things. Some of you, who came early, made the mistake of bringing your own climate along with you. You should not have done that. We have a much better one for you—one of our own invention. At least, it has been charged that we invent a great deal of it. We acknowledge that we do manufacture it. The formula is very simple. You take all the best climates of all the rest of the world, take out the best of them at the best season of the best year, blend them; refine them a little, and you have a fair imitation of California climate at its worst. It is not protected by patent, but it is forbidden to manufacture it outside of the State. I would tell you more about our climate, but being a minister of the gospel, I am hampered by rigid limitations, and cannot speak freely and broadly as I should.

It is a joy, spiced with a thrill of adventure, to meet a school teacher in vacation. It is like meeting a lion in the jungle, whom you used to tease in his cage. You are genuinely glad to see him, but you wonder about two things—if he remembers, and if he harbors resentment. My school days were ended, happily for you, before any of you were born. If you will promise to say nothing about it outside this auditorium, that the schools may not suffer thereby, I will confess that I am a product of the public schools. They were not so remarkable for their productions in those days as they have since become. I must have been one of the by-products. The high school of Peoria, Illinois, was my college. I knew so much when I was graduated from that institution, that I could not bring it all away with me. Consequently,

I have been going back to the public schools for the rest of it ever since. I went from school straight into the army. War seemed so calm and tranquil and peaceful after my stormy school days. It was such a relief to go from Corporal Punishment to Corporal Atkins. Every teacher who had a part in directing my education ought to have a war pension from the government. I think a dollar a minute would be about right. My first teacher, Ephraim Hinman, is now living here in Los Angeles. He is a Methodist, and that great church ought to make a bishop of him, for his grandly successful work among the heathen. I don't see why they haven't done so. Perhaps they found out that I was one of his converts. I was a maverick when I started to school, all right, but successive dynasties of instructors put the proper brand all over me, before I was finally broken to the yoke and plow. I wasn't professedly a believer in corporal punishment. But I was better than most professors and nominal believers. I practiced the doctrine right along. At least, I lived up to it. It did me good and does me good unto this day. It makes a great many things beautifully clear to me. "Now no chastening for the present seemeth to be joyous," says the great Apostle, "but grievous." I don't need any commentary on that passage. I am a seminary exegete on that part of the epistle. But I can truly say that all my chastisements at school are at this day among my most joyous memories. I laugh every time I think of one. Not so much about the whipping, as over the recollection of the jolly good old time I had earning it. I was recklessly happy as a man who is acquiring the gout for his grandsons. But all that went in the curriculum. My school days were happy, seriously speaking. I was a happy boy. All the year round I was happy. And in the loyal, tender, loving niches of my heart I have builded the fairest shrines my affection can fashion, wherein I have placed the images of the saints who were my school teachers. Some of them are living; some are dead; the living are all old and gray. But there, where I alone can see them, they are all living; they are all young, with the morning light of love and enthusiasm shining in their faces. Memory makes them beautiful, and the years cluster about their brows like stars. For their sakes you are all young and fair and good, and with my own dear teachers standing in my thought for every one of you, I bid you welcome—welcome—welcome.

RESPONSE

W. T. HARRIS, WASHINGTON, D. C.

Mr. Burdette, Ladies and Gentlemen of Los Angeles:

I am requested by the President of the National Educational Association to return thanks for the words of cordial welcome to which we have just now listened. I desire to tell you how glad we are to come to California and to Los Angeles. We teachers of the East and the North and the South and of the Mountain States see a very great career for education in California.

We see that it is the destiny of California to solve great problems in agriculture and in manufactures. You will solve the problem that deals with irregularities in water supply. The arid regions to the east of you, stretching for 1,500 miles, furnish one part of this problem, while your most immediate problem lies in the sequence of wet and dry seasons, each separated in such a way that the one does not aid the other except by the device of storing up the water of the rainy season for irrigation of the crops that are to grow in the dry season. You are collecting a body of knowledge as to the proper amounts of water to use in producing the various crops; and you are using the new discoveries as to the introduction of nitric acid into the soil by means of the microbe that feeds on the roots of leguminous plants.

I am proud of our national Department of Agriculture and of the laboratories connected with its several bureaus. Its policy re-enforces the men who have genius for this line of research and helps to organize their individual researches into a united endeavor. Such men as your Burbank and his disciples—magic workers in biology—are thus multiplied and made more influential thruout wide circles of agricultural experiment.

One may predict that you will soon have the cactus bearing a new sort of peach, cherry, pear, or plum fruit with something of the fig in its nature, and after that even the sagebrush will have its turn of developing into garden vegetables of surprising excellence and abundance.

When I first began to know of maps of the United States, in the period before the Mexican War of 1844–48, we used to see the words "Great American Desert" covering the western mountain division of the United States and extending to the Pacific Ocean. It was not realized then that the prophecy of Holy Writ "The desert shall blossom as the rose" would be in prospect of applying to the entire Great American Desert within the century.

There is a perpetual degeneracy going on in agricultural plants when moved beyond their line of best climate. The garden vegetables prized for their sweet juices, their sugar and starch, lose one of these elements and grow, in their stead, woody fiber when carried into warmer climates. There is a greater development of the husks and hulls and shells and stringy fibers in place of succulent and highly flavored vegetable tissues. Your California biologists are in a way of discovering how all this happens and, what is better, they will discover how to restore and how to preserve the most excellent qualities of vegetables and fruits. The effects of your specializing in the biology of fruits and vegetables will then reach far beyond your borders, and tendencies to degeneracy will be checked in the South and the East, as well as the opposite kinds of degeneracy which develop in the cold of the extreme northern sections.

California will also solve the problem of manufacturing by transfer of power from your mountain streams for long distances. It will add new industrial devices in the arts as well as in agriculture. Just as California has developed into an important art the preservation of the most delicate and

perishable of fruits, all of which is managed so efficiently that cherries go in boxes for four thousand miles, into moist climates, and do not decay, but only dry up after weeks of storage; so these other important arts will arise here and be perfected by men and women who are now boys and girls attending your schools.

The education of the directive power for this great work in the world is progressing in your schools in its first beginnings. It will prevail more and more. We are glad to know the teachers who are to do the training. We thank you for your cordial welcome.

PRESIDENT'S ADDRESS

WHAT CAN THE SCHOOLS DO TO AID THE PEACE MOVEMENT?

NATHAN C. SCHAEFFER, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, PENNSYLVANIA

The greatest problem of the twentieth century is the boy—with one exception—the girl. As soon as the girl takes up the study of history, she begins to wish that she had been born a boy. Her textbook magnifies the achievements of men and devotes very little space to the deeds of women. Gradually she reaches the conviction that everything great and heroic belongs to the other sex, that life is not worth living unless one can attain military glory, and that her greatest misfortune is to have been born a girl.

The boy is apt to form similar ideals from the textbooks on history and the methods of teaching the subject. The names of admirals and generals, the battles they fought and the victories they won, the causes and the effects of the wars in which they were engaged, constitute a very large part of the material of instruction. The examination questions which are supposed to emphasize the most important portions of the school curriculum, bristle with wars and the things of war. The boy loves power and admires every exhibition of personal and national strength; he admires the heroes whose names are immortalized upon the pages of history; he gradually conceives the notion that the wearing of a uniform, the carrying of a sword or a gun, the shedding of blood, and the acquisition of military renown, are essential to a life worth living.

It seems to me that our textbooks, our examinations, and our instruction should glorify the arts of peace above the art of war. In other words, history should be taught from a more rational point of view. Whilst it would be wrong to minimize the sacrifices and services of the army and the navy, it will nevertheless be wise to emphasize the victories of peace above the victories of war, and to teach history in such a way that the pupil will write the name of the poet, the orator, the artist, the inventor, the educator, the jurist, the statesman, the philanthropist in a place at least as conspicuous in the temple

of fame as that occupied by the name of the victorious general or the successful admiral.

How can this be accomplished? In the first place, let us instill proper ideals of life and of heroism. The pupil can be led to see that Pasteur, the scientist, has done more for humanity than Napoleon, the destroyer of thousands; that Carnegie, the philanthropist, has done more for civilization than the admiral who sinks a hostile fleet; that the men who by experiments upon their own bodies showed how yellow fever is transmitted and can be prevented were as great heroes as any soldiers that ever faced a cannon's mouth; that the woman who serves in the hospital as a nurse displays as much heroism as the officer who serves his country in time of war; and that in the sight of God the drying of a tear is more than shedding seas of gore. As soon as the girl realizes that a life worth living does not turn upon fame or fortune or official position, nor even upon science and literature, but upon the personal relations which human beings sustain to one another and to their Creator—as soon as she grasps the truth that it is in the domain of personal relations where woman truly reigns as queen, she grows proud of her sex and no longer wishes that she had been born a boy.

In the next place, patriotism should never be taught so as to make it the meanest of all the virtues. It is possible to emphasize the maxim, "My Country, Right or Wrong," to such an extent that the citizen will resort to anything base and contemptible for the sake of furthering the material interests of his country. Rulers and governments hesitate to begin an unpopular war. Our teaching of history should create the kind of public sentiment that will make it unpopular, if not impossible, for a ruler or a government to wage war except for the maintenance of justice, law, and order among the nations, especially among the partially civilized tribes in distant portions of the globe.

Whilst the teacher is inculcating proper ideals of patriotism, heroism, and public service, the pupil can be taught to despise not only the bully who is ever anxious to pick a quarrel with weaker companions, but also the nation that is ever ready to go to war at the expense of weaker nations. Both teacher and pupil should distinguish between the different kinds of war. First, there is the war for tribute. No nation can now afford to carry on war for blood money under the guise of exacting a war indemnity. The second is the war for booty and plunder, such as the wars carried on by the robber barons during the Middle Ages. Third, there is the war for the gratification of personal ambition, such as the wars which the first Napoleon was continually waging. The fourth is the war for territorial aggrandizement. Of this kind of war our country has not always been guiltless. No teacher in the classroom and no orator on memorial day or the Fourth of July hits the mark if he glorifies or in any way excuses any one of these four kinds of war.

There are two kinds of war for which more can be said. One of these is the war for principle, of which the American Revolution was a type. The other is a war in behalf of the oppressed, the downtrodden, the defenceless,

like the Spanish–American war. In dealing with these two kinds of war it is well to point out both sides of the dispute and to show how war can be avoided by the peaceful method of arbitration. How well-posted we all are upon every war that our people have waged; how little we know of the two hundred and fifty international disputes which have been settled by the peaceful method of arbitration; and of the fourty-four treaties, some between leading nations, like England and France, for the settlement of their disputes in whole or in part by the use of arbitration. How frequently we discuss the Monroe Doctrine which has brought us again and again to the brink of war; how seldom we speak of the arrangement made during Monroe's administration for the limitation of armaments along our Canadian boundary—an arrangement that has secured peace between the United States and Great Britain in spite of all the acute disputes which have arisen since the War of 1812. How few people know the significance of The Hague Court, for whose sittings Andrew Carnegie is building a palace to cost a million and a half of dollars.

The teaching of history can be made to culminate in the proper observance of the eighteenth of May and of Washington's birthday. The teachers of France have resolved to observe these days by appropriate exercises, and the schools of America will do well to follow the example of the Third Republic. The publications of the American Peace Society furnish abundant material at small expense for the proper observance of the eighteenth of May—the day on which the delegates to the first Hague Conference assembled—a day which certainly marked an epoch in the world's history. In the not distant future this day will be as universally observed as Arbor Day and the festival days of the church year. Some of the colleges now observe Washington's birthday in such a way as to strengthen the sentiment for peace and justice in dealing with other nations. Several years ago at the Mohonk Lake Conference Chancellor McCracken pointed out that the most popular textbook on international law devotes more space to the conduct of nations in time of war than to the conduct of international affairs in time of peace, whilst not one page is devoted to the ways in which nations may avoid war. Since that meeting a movement for the study of international arbitration has been inaugurated in most of our colleges. Just as the light which first illumines the mountain tops gradually reaches the valleys, so the light which the higher institutions are now beginning to disseminate will gradually illumine the teaching of history in the lower grades of schools.

We hear much of the emancipation of the high school from the dominating influence of the college. In the direction of fraternities, festivities, athletics, and courses of study, there may be room for change, but I hope that at no distant day the kind of history which our colleges now teach and which emphasizes the movements for the uplifting of the masses will replace the drum and trumpet sort of history which eventuates in hatred of redcoats, distrust of other nations, and a species of patriotism that is the meanest of all the virtues.

Peace has become so great a Shibboleth that the introduction of rifle practice into the public schools is now advocated as a peace measure.

> The experience of our recent wars [it is held] has pointed out that, while there is no difficulty in case of war in getting all the volunteers that the country requires, and they can be given a reasonable amount of drill in a few weeks, it takes them a long time to learn to shoot, and that unless they can shoot accurately, they are of little value as soldiers. If, however, the young men who are graduating from our high schools in the different states should be skilled riflemen, the country can rest content with a small standing-army, knowing that in case of war it can put into the field at short notice a force of volunteers whose skill in rifle shooting will make them to be fully the equal of any army which may be brought against them. The system is, therefore, a great factor for national peace.

As a teacher from the state which William Penn founded, I must put a big interrogation point after this theory. Whenever anything goes wrong in the life of the nation, people look to the school for a remedy. If the reports in the daily papers are correct, there were 6,258 desertions from the army last year, and out of a total of 24,083 enlistments not more than 8,848 were re-enlistments. The invention of smokeless powder, machine guns, and modern explosives, and service in tropical countries have robbed the occupation of the soldier of its former attractiveness. The fact that boys at the age of thirteen can learn to shoot with marvelous accuracy should be correlated with the fact that at the same age, and even earlier, boys can be taught all sorts of break-neck acrobatics; no one would, on account of the skill which may thus be acquired, be justified in advocating the introduction of either acrobatics or rifle practice into the curriculum of our public schools. There is a limitation to the kinds of skill which a human being may acquire, and the development of skill in these directions interferes seriously with the development of skill in other and more useful lines. The development of skill in shooting is desirable on the part of those who join the army or the state constabulary; but if during a strike every striker were a skilled rifleman, the difficulties in maintaining order would be infinitely multiplied. It was, therefore, a source of gratification to learn from the secretary of war that no scheme for the inauguration of a policy to establish a system of rifle practice thruout the schools of the country is at present under consideration by the War Department.

At this time three great meetings are in progress. Delegates from every civilized nation are in session at The Hague for the purpose of lessening the evils and the frequency of war and of promoting the use of arbitration as a means for the settlement of international disputes. On the shores of the Atlantic the Jamestown Exposition advertises the greatest military and naval display the world has ever seen in time of peace. On the shores of the Pacific, in the city of "the angels," the association which represents the largest body of educators in the world has met to discuss the latest problems in education. Shall we plant ourselves on the side of peace or of war? Will the advocacy of peace raise a generation of weaklings? Has any one ever dared to call William Penn a weakling? He was as brave and courageous as his father,

the admiral. Self-restraint is often more difficult than combat. Perhaps for police purposes, if not for national protection, we shall need a small army and a navy during coming centuries, but as soon as the three and a half millions of teachers in the schools of the civilized world shall begin in earnest and with skill to inculcate sentiments of peace and the principles of justice and fair dealing in the treatment of weaker nations, we may hope for the limitation of armaments and the dawn of an era of peace that is worthy of the disciples of the Prince of Peace.

DEMOCRACY AND EDUCATION

ALBERT BOYNTON STORMS, PRESIDENT OF IOWA STATE COLLEGE, AMES, IOWA

Democracy is more than a political experiment. It is the latest spiritual enterprise of the ages. Tho not yet complete, nor yet permanent, democracy is the crowning achievement of history. Democracy is an ideal, a leaven. It is not to be identified absolutely with any particular political or social organization. It is a spirit. Democracy means "life and more abundant life." Destructively, it means the tearing down of artificial distinctions and class privileges. Democracy is the instinctive foe of hereditary and caste prerogatives. It recognizes no oligarchy but that of individual worth. The French Revolution has been styled the French Madness. But there was a philosophy in the custom of democrats in addressing one another as "citizens," discarding all other title. Democracy has the watchword of the age for its own—Freedom and Opportunity.

Constructively, democracy has meant carrying to the people as a whole the prerogatives of power and of privilege heretofore reserved for favored classes of individuals. It has meant extension of elective franchise, the protection of the natural rights of all men to liberty of person save under restraint by process of law, the right of trial by their peers, the freedom of religion, and security of property. Democracy has meant the right of any political society to depose its existing rulers and to raise others in their places, to freely elect their legislative and representative bodies and to hold the power of taxation in their own hands. It has meant freedom of industrial opportunity and the largest possible extension of educational privileges.

Democracy is pervasive. It illuminates. It challenges. The extension of power and privilege to the people is after all but the more superficial aspect of Democracy. Its great meaning is duty. But the great and deep and solemn meaning was not at first the most obvious. Democracy's first appeal has seemed to be to the selfishness of the people. To the American no less than to the French revolutionists democracy appeared to spell privilege, exemption from burdensome taxes and oppressive legislation by an authority outside of themselves or of their election. It meant the breaking of yokes, emancipation from real or imagined grievances. The first attempt at a nation in the confederation of states was a ludicrous failure—tho a necessary

step in the process of educating a people to self-government. The appreciation of the necessity of a central and efficient authority was slow. The sense of duty follows tardily upon the heels of privilege. But democracy's great and deep and solemn meaning is not privilege alone, but privilege thru duty and duty beyond privilege.

Prophets of evil have not been wanting. The irresistible political and social tendencies of the age, the underlying gulf streams, are towards democracy. But men whose political optimism is sound concerning the past political history of the race are pessimistic in the presence of the democratic tendency of this age and look upon democracy with undisguised apprehension and suspicion. Lecky, in his *Democracy and Liberty*, sees in democracy itself the doom of liberty, except democracy be curbed and limited. He looks upon democracy much as Alexander Hamilton did upon the type of democracy prevalent in America in the period immediately succeeding the Revolution—as a "disease." Lecky regards the democratic theory of government as reversing all the past experiences of mankind, that superiority and competence lie with the few, not the many; that the extension of the franchise is but to place government more and more under the control of the least enlightened classes; in short, that democracy means government by the mob, by the least fit, and that it seeks increased capacity for good government in the representative body by the foolish expedient of increasing the amount of ignorance in the elective body. Lecky points out the tendency of democracy to produce inequitable taxation by placing the power of voting taxes in the hands of one class which another class must almost exclusively pay; the chief taxpayers, "being completely swamped," are for "all practical purposes completely disfranchised."[1] He also adverts to the instability of democratic governments. Frederick the Great of Prussia told the English embassador in 1872 that the United States could not endure, "since a republican government had never been known to exist for any length of time where the territory was not limited and concentered."[2] It was one of Lincoln's grave and statesmanlike utterances, that "it has long been a grave question whether any government, not too strong for the liberties of its people, can be strong enough to maintain its own existence in great emergencies."[3]

These critics of democracy are not to be laughed out of court nor their warnings disregarded. It still remains to be demonstrated that governments "of the people, by the people, and for the people" can "long endure."

THE ETHICS OF DEMOCRACY

Critics like Lecky, however, overlook the fundamental ethical principles of democracy. Enlightened democracies are not governed by the least fit, the ignorant, the incompetent. They are governed by majorities, and majori-

[1] *Democracy and Liberty*, I, p. 32.

[2] Hart, *Formation of the Union*, pp. 100, 101.

[3] Morse, *Life of Lincoln*, II, pp. 293, 294.

ties are secured by ideas and by policies crystallized into political party platforms. There is no school of political science so important and so puissant as the actual discussion of living issues by the people under a sense of responsibility for political action. The ballot in the hands of the voter is sobering and educative. In the end, and with a serious and earnest people, governing majorities must meet the approval of the sound judgment and enlightened conscience of the people or lose supremacy. "All such questions," said Lincoln, referring to temperance, slavery, etc., "must find lodgment with the most enlightened souls who stamp them with their approval. In God's own time they will be organized into law and then woven into the fabric of our institutions."[1]

There is a finality about the ultimate decree of a free people upon great moral and economic questions, like that of slavery, that is like unto the decrees of the Eternal. In democratic forms of government, while the demagogue may flourish for a season, the leadership of the fit, the commanding influence of men who are kings by divine right of character, the power of personality, are at least as marked and as enduring as in any other political organization. Let us call to witness Gladstone, Washington, Lincoln.

The boldest political experiment of history is now in progress in these United States. That it is of vast interest is evidenced by the fact that over a million immigrants are coming every twelve months to cast their fortunes with us. And there are not wanting prophets of evil in the face of this tremendous fact. Our great cities are half alien. We are drawing apparently the largest number of immigrants not from the most, but the least, desirable of European and Asiatic peoples.

But in the midst of evil prophecies let us recall another principle in the ethics of democracy, namely, that it is the more virile and aggressive of any people that are attracted by the freedom, the industrial and political and social opportunities of the democratic West. The Bethlehem star that guides searchers for larger and better life is the star of liberty. It is freedom's challenge that appeals to the people that sit in darkness. They have seen a great light. We may not despise these seekers after a "better kingdom." They compare very favorably with our own forebears.

THE PERIL OF REPUBLICS

But the peril of republics is ever before us, the peril that springs from ignorance and from a lack of intelligent patriotism. Other forms of government may survive indefinitely over a stolid and non-progressive people. Republics cannot live without virtue. The instinct of self-preservation has inspired democratic governments to foster universal education. Enlightenment and virtue are the *sine qua non* of existence. Jefferson stated the problem of democracy when he said it was the province of the school

[1] Herndon, *Life of Lincoln*, I, p. 158.

to form the statesmen, legislators, and judges, on whom public property and individual happiness are so much to depend; to expound the principles and structure of government, the laws which regulate the intercourse of nations, those formed principally for our own government in a sound spirit of legislation; . . . . to harmonize and promote the interests of agriculture, manufactures, and commerce, and by well-informed views of political economy to give free scope to the public industry.[1]

There is no duty more imperative than the fostering of all educational facilities. The public school stands first and should so stand. It is the greatest unifying agency of the age. But the parochial and the private schools also have honorable place. There are not schools enough. Parts of our country are fairly destitute. The president of the school board of New Orleans, a public-spirited and very intelligent man, told me recently that he favored a compulsory school law for that city; not because it would be possible to school all the children of the city, or half of them, with present facilities, but because a compulsory school law would overwhelm the schools, compel attention to the need, and the sooner secure adequate provision.

There doubtless is much to criticise in present schools and school methods. Let wholesome criticism proceed. But let us not forget that our great duty is to encourage the extension and the influence of the schools existing. We may not quarrel overtime about doctors and pathies and poultices. The doctor at hand is quite efficient in emergencies. There is no need so great nor any duty so imperative as the strengthening of our primary and country schools to greater efficiency. It is still true and should be increasingly true that the little red schoolhouse on the hill is the temple of liberty. There is no severer test of the ability of democratic society to preserve itself from decay than this. Can and will democracy maintain at a high level of efficiency its common schools?

There is no civic duty of an educated and patriotic citizen that should stand superior to this of assisting to foster the common school. There needs to be a civic conscience about adequate taxation for this purpose and the encouragement of a high order of character and ability to enter the teaching profession, especially in the common schools.

ENLARGED SCOPE OF EDUCATION

Democracy has felt the inadequacy of the older educational methods and ideals. Education must not be for the few but the many. It is the duty of the state not only to provide educational facilities, but to require that they be generally utilized. The scope of educational interest must be broadened. Classical culture and the humanities alone are inadequate. The school must teach the real interests of life for a working people. A few may sit aloof still in haughty isolation and declare with Lowell that a university should be a place "where nothing useful is taught." But democracy has small patience with such educational fastidiousness. The sturdy youths in laboratories and shops, drafting rooms and field, with life's real business before them have

[1] Harper, *The Trend of Higher Education*, p. 33.

brushed aside intellectual dilettantism. Science and art have meaning for life's earnest work as well as for its leisure pastimes.

And with the extension of educational interests has come the extension of educational privileges. State and private munificence have alike conspired to bring to the common people the blessings of higher education, technical as well as classical and professional. Educational ideals have been conservatively aristocratic. Thos. Barclay, in the report of the English (Mosely) Commission, says:

> The British mind must at once disabuse itself of the idea that Harvard and Yale are educational centers for the seventy or eighty millions forming the population of the United States. They are only two universities which have more or less resisted the democratic tendencies of the New World.[1]

And farther along he says:

> When we get closer to Americans, we see that, in spite of all their apparent superficiality, their schools are turning out more active, business-like, hard-working, enterprising young men than either English or German schools—young men with greater ambition, and self-reliance, and a greater capacity for development, equally courageous in work, and more sober in their lives, with a higher sense of industrial integrity, and all-round greater pleasure in effort, and better humor in adversity.[2]

I have found no better expression of the democratic ideal of education than in the address of Dr. Barrows, general superintendent of education for the Philippines, in which he says that the ideals of the educational commission include "a large, general purpose to raise the spiritual character, industrial efficiency, and the political capacity of the entire people." To this end higher education in its wider and more inclusive scope of technical and professional training has its place, and a most important place.

The value of higher education has always been evident to minds of a nobler order, and always in progressive civilized society there have been found men and women of means and talents ready to devote themselves with enthusiasm to the interests of higher education. Thus the older universities and some of the newer technical schools have been established and endowed by private munificence.

Higher education, however, in a democracy cannot be adequately based nor adequately provided except by the people themselves. A democratic people do not thrive best in any of their interests by being paternally and patronizingly endowed by benevolence. It is only by self-assertion and by institutions that are organized and equipped and maintained by the people's own will and at their cost that a democratic society can adequately provide for its higher educational needs as well as for its other social and political requirements. Useful as the privately endowed institutions of higher education have been and are—and I would not like any to excel me in admiration and respect for their higher service—they are, nevertheless, inadequate and must be so, however much of wealth may be devoted to them, to meet fully

[1] *Mosely Commission Report*, p. 397.

[2] *Mosely Commission Report*, p. 397.

the higher educational needs of a democratic people. They must provide their own. Institutions of higher learning that are utterly democratic must spring from the people themselves, must rest upon their support, must be at once the expression of and the stimulus to a higher civic consciousness of privilege and of duty. Democratic society owes it to itself to find thus an adequate expression for its educational ideals.

President Pritchett, in his report on the Carnegie Foundation for the Advancement of Teaching, places upon the state institutions of higher learning a very high value. He says:

> The older American colleges in the days of their weakness sought and obtained a measure of state aid. All these institutions, however, as the difficulties of political connection became evident, chose the alternative of private control and support, a form of distrust of democracy not common in a republic. The state university deserves the credit of launching its bark upon this sea. It has endured the storms of political interference and the dangers of party politics and has come safely into smoother waters. Today it is the most encouraging feature of popular government which the states of our Union have to show. It is true that the state institution is indebted in large measure for this development to the example of the private independent university and college. None the less it stands today the best evidence we have to offer of the outcome of an enlightened appeal to the intelligence and patriotism of our various commonwealths. For this great service, not alone to education, but to practical democracy, all citizens of our country owe a debt to the statesmanship of those who planned these universities, and most of all is recognition due to the army of teachers who have given their lives in them to the cause of democratic education.

The states have responded to the rapidly growing demands for higher education by increased appropriations for buildings and equipment and annual support. In ten of the states of the Middle West and the West the annual income of their state universities has increased in the last ten years from the total $1,689,200 to $4,577,700. Instead of drawing the conclusion which President Pritchett does, that all private beneficence should be withheld from state institutions of learning, it would seem to me to be much the sounder conclusion and policy that state institutions, thus resting upon the people and being utterly democratic and receiving increasingly large appropriations, should be supplemented by private beneficence. There is no better guardian of trust funds for higher educational purposes than the state itself, and no more fruitful soil and no freer atmosphere for growth of scientific and cultural influences, such as private munificence can foster, than the state institutions of higher learning. There are some things the state will be very slow to do, if indeed it ever does them, and one of these is anything like an adequate provision, if indeed any provision, for retiring allowances of teachers. The erection and endowment of halls of art, libraries, guild halls, gymnasiums, athletics, provision for scholarships for worthy young men and women without means, the building of dormitories or student homes, the erection and endowment of Christian Association buildings, student club houses, the erection of permanent and worthy memorials, the endowment of chairs for scientific research, the pensioning of teachers who have devoted their lives to one of the

noblest services of the age; these are some of the ways in which private munificence may most fittingly supplement and complement the higher educational work of the state, and such expressions of confidence and enthusiasm can but have stimulating and helpful influence upon the state support of its own educational work.

But let us beware of an extreme secularizing of higher education. It is commonly accepted as an established principle in our political organization that state schools, maintained at public expense, shall not be under any distinctive denominational or sectarian influence or control. So well established is this policy that the warmest adherents to it are those who themselves are loyal, staunch members of some body of the Christian church. And the last to show treachery or distrust of this principle of the separation of the church and the state would be churchmen themselves. But to draw the conclusion of an extreme secularism would be both unsound and suicidal. There are certain fundamental principles of religion that may not be ignored in any organized expression of civic activity. Even the courts must recognize this in the form of oath which they administer. And if it were possible for a community of teachers and of students, of trustees and of officers, in any institution of higher education in a democracy utterly to forget God, that institution would certainly atrophy and wither away as the branch that is separated from the root. The possibility of freedom in matters of religious opinion and practice, of strength and unity of conviction as to fundamental religious conceptions, is one of the noblest ideas issuing into clear conviction in this democratic era.

Higher education springing from a democratic people and resting upon them is comparatively a new thing. There is perhaps no finer illustration of the first principle of the ethics of democracy than is the existence of institutions of higher learning in a democracy. It may be doubted whether at any time the actual majority of a people would voluntarily and intelligently impose upon themselves a sufficient burden of taxation and of care to found and maintain such institutions. There have always been, and probably may always be, many who demur, who declare from a narrow and selfish standpoint that it is unjust that they should be taxed for the good of others, who question whether the state has any obligation to provide the facilities for higher education at least, and it is probably true that the sheer intellectual inertia of a large majority of citizens would leave forever undeveloped the possibilities of higher education but for the masterly leadership of men of ideas and of ideals. Ideas and ideals must create policies and command majorities even at times almost against their wills. And there is no finer tribute to the ethical power of democracy than the actual existence of great universities and colleges in this democratic West.

It must also be recognized that stimulating and upbuilding influences in education, as elsewhere, come down from above. The high schools and secondary schools have had no such organizing, stimulating and upbuilding

influence as that of the universities and the colleges in establishing, as the latter have, standards and ideals to which the secondary schools might aspire. The secondary schools in turn have had their beneficent influence upon the primary schools, and so from the higher institutions of learning to the primary grade and the kindergarten radiating influences have been wholesome and uplifting and organizing. From the laboratory of research and from the library of the student have come the organizing influences that have given coherence and purpose and energy to the entire people.

RESEARCH AND THE COMMERCIAL TEST

At once the stimulus and the peril of modern scientific research has been the fact that the results of research have often proved commercially advantageous. It must be confessed that one of the strong incentives for the support of science at the hands of the state has been the belief that the results would be profitable. One of the arguments that always has weight with a legislative committee is the argument that education and research pay. And this suggests one of the extremely interesting phases of higher educational interests in a democracy. Science and culture may no longer withdraw in monkish seclusion from the world of affairs. Industrial efficiency is one of the important results of higher education. It is the business of science to help men in the struggle for existence, to teach them the potencies of the soil and of the air, and to teach them to conserve fertility of the land and to have a conscientious care concerning the exhaustion of the soil. Men never have, and probably never will, come to a high state of civilization, of moral and intellectual life, where the pastures are scant, the soil thin, and the people hungry. They who make two blades of grass grow where but one grew before, and who teach how to coin from the sunshine and the dew an extra ton of butter-fat for a ten-acre field, are blessing the world with the material possibilities of advancement and progress. And they who make industry interesting and lift toil above drudgery are among the world's great benefactors.

But wherever and whenever a money value attaches to the process and results of research there is also peril. Will a democracy keenly alive to commercial values be patient with its servants of research, leave peaceable the atmosphere of scientific and academic freedom? Will the search for truth be still the guiding star of those rare minds capable of intellectual exploration and discovery? This is an inquiry not yet fully answered, nor can it be until maturer results have been reached in the development of higher education. There is as yet lacking both patience of spirit and thoroness of method. Our growth has been too rapid and there is, as yet, too much of the eager alacrity and impatience of a young republic for us to know what can be done or what shall be for the fostering of research. Here, as elsewhere, in all higher ranges of service there is scope and need for commanding leadership.

Closely akin to this inquiry is another, namely: Is democracy favorable to the enthusiasm of the scholar? In all ages that history pronounces great,

the scholar has stood forth with torch in hand to guide men to the fountains of living waters and to the serene heights of intellectual and spiritual outlook and inspiration. The scholar's place is always in the van and his home is in the rugged heights. Other men may lie down to sleep in the furrows which they have plowed and by the heaps of metal which they have dug from the mine, but the scholar, like the Christ, seeks the mountainside and the night and the silence, and when he comes to mingle with the people and to put his hands to his daily task, it is with a touch of power. His soul grips the commonplace and transfuses it with the light of the spirit. It is of the scholar that Browning sings in "A Grammarian's Funeral":

That low man seeks a little thing to do,
Sees it and does it:
This high man, with a great thing to pursue,
Dies ere he knows it.
That low man goes on adding one to one,
His hundreds soon hit:
This high man, aiming at a million,
Misses an unit.

Here's—here's his place, where meteors shoot, clouds form,
Lightnings are loosened,
Stars come and go! Let joy break with the storm,
Peace let the dew send!
Lofty designs must close in like effects:
Loftily lying,
Leave him—still loftier than the world suspects,
Living and dying.

Will democracy banish the scholar and the scholarly spirit or will it foster and honor both? This question, too, is not yet fully answered, nor is the answer certain. But to men of faith and of optimism it seems certain that spiritual values will not be ignored, but rather that in a democracy princely spirits will come more truly to their own than in any other form of society, and that as kings and princes and priests in the old Hebrew economy were selected from the people and anointed for their tasks, so shall the scholar in a democracy be anointed for his task. Democracy must have its scholars, its intellectual leaders, its spiritual guides, and as the Hebrew nation based its ideas of social service and efficiency in its consciousness of God, so must democracy rest its spiritual and intellectual life back upon the granite of the spiritual and intellectual Eternal. Democracy must not only be intelligent and ethical, but it must be fundamentally religious. To build upon any other foundation is to build upon the sand.

INDIANS AND THEIR EDUCATION

FRANCIS E. LEUPP, UNITED STATES COMMISSIONER OF INDIAN AFFAIRS, WASHINGTON, D. C.

[*Stenographic Report*]

Ladies and Gentlemen:

When I was asked the other day to take part in this meeting of the National Educational Association, it was with the understanding that I should give

you only ten minutes of informal talk, and that is all I could hope to do. The subject which has engrossed so much of my life is so large, and embraces so much, that it would take weeks to lay it before you in anything like detail.

You have millions of children to educate; I have only some three hundred thousand, but a good many of these are grown up, which makes the task rather difficult. The Indian is an adult child. He has the physical attributes of the adult with the mentality of about our fourteen-year-old boy. One of the great difficulties that we have met in dealing with the problem presented in his case has been the failure of the two races to understand each other. Our race has been misled to a very large extent by the two extreme views that we get on the opposite sides of the continent. The eastern view, usually termed the philanthropic view, is that the Indian is a perfect being, and that it is the business of the white race to keep him alive by giving him everything in sight. At the other extreme stand the group of persons who insist that the Indian is a poor creature, a mere cumberer of the earth; and the white men who hold this view, when they get to the last degree of generosity and benevolence, treat him as they treat a dog to whom they throw a bone to keep him from starving.

And so, between the philanthropist on the one hand and the eminently "practical" citizen on the other, with a little interlarding of the old school geographies, we obtain a very extraordinary view of the Indian. One of the things we are taught in our school books, for instance, is that the Indian has no sense of humor—that he is a grim and morbid soul. My friends, there never was a greater mistake in the world. No people have a keener sense of humor than the Indians. Around their camp-fires at night I have heard them tell funny story after story, and the laughter has kept up as long as there was anyone awake to respond.

A year or two ago I was visiting the Klamath reservation in Oregon and had the Indians at a council. I had only recently appointed a new superintendent there with the duties of an agent, and I said to them:

> My friends, while I have seen a great many things here which I like—the way you build your houses, the way you cultivate your fields, the way you care for your cattle, the self-dependent spirit you show—still, there are certain things I should like you to improve in. I have given you a first-rate agent, who takes the greatest interest in your affairs. I selected him because he had done so well everywhere else, and I know that he is doing well for you, too. But since I have been here and living in his house, I have observed that at any and all times, waking or sleeping, he is subject to your demands. When we are at the table at meals, you call him out; when he is just ready to go to bed, you call him down stairs; and all for business which could have been transacted earlier in the same day, or could just as well go over until the morrow. Now, my friends, an agent, like everyone else in this world, *must have some time to rest!*

Then I paused a little, to let the idea sink in; when an old man over in the corner, who spoke a little English, piped out: "The last agent rested *all* the time!"

We also hear that the Indian is dishonest. People tell you that you must

not leave a thing around loose or the Indians will steal it. You may remember the story of the good bishop who was crossing a reservation, and, when night came, began looking around him. "What are you looking for?" inquired his Indian guide. "A place to hide my watch, my purse, and other valuables," he answered. "Oh, never mind that," said the Indian, "there isn't a white man within a hundred miles of here."

A delegation of Osage Indians visited me at Washington about three years ago. After we had had a long council, a subchief put his hand under his blanket and drew forth a scroll, which he handed me, saying: "I wish my father would look at what is in this scroll, and tell me whether it is like what we have been talking about here today." I opened it, and found that it was a parchment writing signed by Thomas Jefferson's secretary of war setting forth the friendly relations between the government and the Indians, and closing substantially as follows: "Attached to this parchment is a chain of pure gold. Until that gold shall tarnish, the friendship between the white man and his red brother shall remain undimmed." I looked in the upper left-hand corner, and there, sure enough, was the chain—a very good one, about eighteen inches long, and heavy. It was intact, just as when in 1804 President Jefferson's secretary of war had fastened it to the parchment. One hundred years had elapsed. In the interval, these Indians had gone thru many vicissitudes of fortune; they had lived in tents, in holes in the ground, in brush houses, in log houses; they had not had a bank or a safety vault in which to deposit this parchment; and yet in all those hundred years, that chain had not found its way to the pawn shop! I think on honesty those Indians could give points to San Francisco!

We hear that the Indian is naturally a dependent creature, and that he enjoys the pauperized condition to which an ill-judged philanthropy has degraded so many of his people. Why, my friends, in 1895, the Navajo Indians had had a particularly hard winter. They had lost multitudes of their sheep, their crops had failed, and they were reduced to eating their ponies, which is about the last thing to which Indians will resort. Someone in Congress introduced a paragraph into the annual Indian appropriation bill, granting $20,000 to furnish rations to the tribe. No sooner had the news found its way to Arizona, than I received letters from two old Navajo head men, imploring me to use all the influence I possessed to prevent Congress from passing that appropriation. Why? "Because we do not want our young men to learn to eat the bread of the government!" If that had happened among white people, you would call it a pretty fine exhibition of character; I do not know why it is not equally fine among red people.

Again, we are told that we can never do anything toward really civilizing the Indian, beacuse he is not "adaptable."

My old friend Quanah Parker, chief of the Comanches, used to do a great many favors for the cattle men who were down in his country, looking after their affairs, seeing that his Indians did not kill their stock, and so on. By

and by the cattle men thought they would give him a present in token of their appreciation. They first gave him money to build a house, as he had said that he would prefer a nice house to anything else. The next year they came around but found no house there, and asked Quanah the reason. "Oh," answered Quanah, "I had some debts to pay and some poor people to feed, and the money is all gone." So the cattle men concluded to build the house themselves. One who was to have contributed to the fund was abroad at the time the hat was passed, and when he returned he said: "Quanah, I didn't get a chance to help build your house, but I would like to give you something to put into it—a nice piece of furniture or something like that. Now, what shall it be?" "Well," responded Quanah, "I would like a roller-top desk, and a chair that goes round like this"—indicating the motion of a revolving chair. "Why, my friend," protested the cattle man, "what would you do with a roller-top desk? You don't know how to write." "Oh," responded Quanah, "I can sit in the chair and put my feet on the desk, and put a big cigar in my mouth, and hold a newspaper up before me, so, and when a white man comes and knocks at my door, I can say: 'Go 'way, I'm busy now.'"

Now, of course, these things deal with externals, but with the large part of the white people who criticise, externals count for everything. There is a widespread idea that if you can strip an Indian of his buckskin and his beads, and put him into a broadcloth coat, and give him a high hat and polished boots, you have civilized him. In the annual report of the commissioner of Indian affairs there used to be a column in which was given the number of Indians who had adopted, either wholly or in part, "civilized dress." That column was about the first thing I ran my blue pencil thru when I came into office. I struck it out because I did not believe that it told anybody anything worth telling. What I cared for was the man under the clothing—not the clothing itself. After I had stricken out the table, many good people among the audiences I addressed used to ask me why I had done so. I answered, because it had kept me solving so many puzzles; and then I explained:

> For example, one old Indian in the Southwest, who always comes to see me whenever I am in this neighborhood, even if he has to walk fourteen or fifteen miles to shake my hand, feels impelled to dress himself in ceremonial costume when he is about to come into my presence. This costume consists of a nightgown. Now, we all know that a nightgown constitutes a part of civilized costume for the white man, at least through a certain part of the twenty-four hours, and why not for the Indian in the other part? And so I was puzzled and distressed by trying to decide into which column to put my old Indian friend—whether among those who had adopted civilized dress wholly, or those who had adopted it only in part.

That is a fair illustration of the sort of logic which appeals to a great number of people who have undertaken the civilization and education of the Indian. Their idea seems to be that we should put something on the outside

of him and drive it down into him by force, instead of stirring up something on the inside of him and developing it until it comes out of itself.

One of the very worst mistakes we have made is trying to do everything for him with too much uniformity. There is no race of people, I venture to say, who have more native individuality than the Indians, and I believe most heartily in drawing it out and cultivating it. The poorest thing we can do with the Indians is to put them into a machine at one end and turn a crank and grind them out at the other end, carefully molded citizens, all after one pattern. The Indians have race characteristics which differ from ours, but which are very good of their kind. They have their own art ideals, and you will find in nearly every Indian the instinct of the artist. The old way of handling this matter in the schools was to put before the children designs of our own preparing and telling them to copy these. We have got away from that. If you want to see how far, go up to the Normal Building tomorrow and look at the exhibit—a small one and very hastily gathered—which Miss De Cora, our Indian teacher of native art at Carlisle, has brought here to show what her little people are doing. She is drawing out what is already in them, instead of cramming them with something from outside. There, again, is Indian music. Plenty of people will tell you that Indian music consists of only a guttural whine, punctuated with beats on a tom-tom. They have ignored all that is best in Indian music and taken the lowest types of it as types of all. European composers have not been so foolish. They have seen how much in Indian music is worthy of preservation, and have exclaimed at our negligence in letting this resource die out thru our failure to recognize its value. I am trying to bring our service back into the right track in this regard also. I want the children in our Indian schools to be able to sing the songs of their people, just as Germans, tho living among us, sing the songs of their fatherland—you have heard some of these tonight. I want our schools to encourage the children to sing their own songs, and in their own language. At Oraibi, one of our most successful teachers, Miss Stanley, has her children bring the songs sung to them by their mothers in the nursery and sing them in the classroom. When she opens the day with these little songs, the children attack the rest of their work with a spirit and a snap unknown to children who have to start the day in the ordinary way.

I see, my friends, that I have exhausted my time. I thank you very much for your kind attention and indulgence. I am already due at a gathering of my fellows in the Indian service in another place, but I could not resist the invitation to come here and say these few words of greeting—the greeting of one laborer to other laborers in a similar field; and to remind you that, altho your task seems discouraging at times, it is a great work in which you are engaged, and that one day you will realize that there is more real joy in the heat of struggle than can be found in the fulfilled accomplishment.

GREETINGS FROM A SISTER REPUBLIC

M. URIBE Y TRANCOSO, REPRESENTING THE DEPARTMENT OF PUBLIC INSTRUCTION AND FINE ARTS OF THE REPUBLIC OF MEXICO

Mr. President, Ladies and Gentlemen:

It is certainly a glorious event which this Association commemorates today. A life of fifty years so fruitful in useful results, intellectual and moral, is the best proof that the high ideals in which its foundation was laid, germinating in a soil very well adapted to them, after half a century of continued growth, as under one of those gigantic trees of California, have gathered and united under its shade the teachers of all the states of the Union.

For the first time in the history of the Association, the educators of another country have been invited to take part in its labors, and with extreme gallantry it has called on the sister republic, with which this country maintains common ideals and interests. Honored by this eloquent proof of distinction, the secretary of public instruction and fine arts of Mexico appointed a delegation to bring to this Association an expression of gratitude on the part of the government and, at the same time, of the teachers of Mexico for this proof of international fraternity; and charged them with the agreeable task of telling you how profoundly it is devoted to the work of teaching and education, convinced that when education has been founded upon really scientific bases, it constitutes the most secure foundation of greatness and prosperity of the nations.

Certainly, one of the most powerful causes of the enormous development and prosperity of your great country has been the education, philosophically directed and vastly extended to all social classes from the laborer to the professional man; but the result is more especially due to the spreading among the people of the scientific notions in which must be built all work intended to put aside the routine, and enable them to think out the necessities always growing out of modern industrial competition.

The intellectual and physical education has received in the United States for a long time specialized attention, and the results have shown themselves in the form of a well-balanced generation which expresses the old *mens sana in corpore sano*, and which with a reserve of mental energy, accumulated by a good preparation of both brains and muscles, has permitted to undertake the gigantic works which have transformed the deserts into emporiums of civilization, uniting with the steel nerves of the railroads the most distant regions of this very extensive country and originating at the end a peculiar civilization admired and studied attentively in Europe and America.

It is enough to read the programs of the different sections of this Association to comprehend the very important part which your works have had in the formation and development of national culture. To bring together and to put in contact the teachers of the most distant places; to procure the exchange of ideas in regard to the benefit of the different methods now in use; to unify

scientifically the opinions; to form a body of doctrines, which in a definite moment the teacher can consult, even in the most distant town, is a task certainly worthy of all praise and encouragement.

It is a pleasure to Mexico to associate herself with this great educational movement, being, as she is, extremely interested in the solution of the same problems—that is, in the diffusion of instruction to all the classes of society, and in perfecting and transforming its educational methods.

In a recent speech, our illustrious educator, Mr. Justo Sierra, minister of public instruction and fine arts, said that the most important problem of modern Mexico is the formation and unification of the national spirit. We stumble really over an obstacle which the United States has scarcely encountered. More than half of the population of Mexico is formed of Indians, whom we have to assimilate in the movement of active progress, which takes place in all parts of the Republic. This task is not easy. Our progress we have realized almost without the co-operation of this important portion of our nationality, and it is already time that the new generation of Indians should enter actively into the now open way.

To accomplish this we depend upon a powerful—an almost unique factor—education. After the unfortunate vicissitudes thru which Mexico has passed, and the long period of social instability which the civil wars brought, has come an era of peace, based upon firm foundations, and one of its principal fruits is already the reorganization of national education.

The government of Mexico is firmly persuaded that in order to carry forward its program, it is necessary to base instruction on methods and principles essentially scientific, and it has sent, and sends continually, to this country and to Europe its teachers, in order that they may study the different methods, selecting those that may be most adapted to our medium and to our race.

Knowing perfectly how the improvement of the scholar is affected by physical health, and how the task of the teacher is facilitated when the children have sound bodies, large amounts have lately been dedicated to the construction of new schoolhouses, with all the modern conveniences, and in the most hygienic manner, for the purpose of avoiding physical deformities in the pupils, such as myopia and all the other evil consequences which the school life imposes upon children.

Already five new school buildings have been completed in the city of Mexico, the cost of which has varied from one hundred and fifty thousand to two hundred thousand dollars each, and the government is now planning to construct all that may be necessary, with every hygienic requisite.

There has existed in the city of Mexico for some years past an official body of medical inspectors of schools, which has given excellent results, and the creation of an anthropometric department is projected, that may bring about the best means to avoid the harmful influence of school confinement on the health of the children.

Alcoholism being one of the greatest factors of physical degeneration, and

the principal one that is to be combated in elevating the intellectual and moral level of our people, the Mexican government has inaugurated in the schools an anti-alcoholic campaign, which, making known to the child the perils of intemperance, must protect it to a certain extent against the inevitable suggestions of the surroundings in which it has to enter.

Our native race would be regenerated, undoubtedly, if we could succeed in inculcating in the children the hatred of alcohol which has degraded this race for centuries. We have eloquent examples of the great qualities of intelligence, heart, and courage that characterize the Indians. When properly educated, they become useful citizens. Our great president, Benito Juarez, was an Indian of pure race.

This high aim can only be realized by the school neutralizing in part the bad influence of the homes in which vice reigns. With the improvement of the economical conditions and the diffusion of education by means of learned and self-abnegating teachers, we confidently hope for a better future, and we will have the satisfaction of having prepared it for the new generations who will be called to fulfill high destinies. Consequently, you can see that we are even more interested than you in the solution of the problems which you come to study here, from such distant places of this country, and at the cost of such great fatigue.

Allow me, in conclusion, to express to you the high esteem and gratitude of the teachers of Mexico for the distinction of which they have been the object; and their wishes that this half-century old Association may reach even a longer life and realize completely the high and noble end for which it was founded.

THE PERSONALITY OF THE TEACHER

RT. REV. THOMAS J. CONATY, D.D., BISHOP OF MONTEREY AND LOS ANGELES

In discussing the personality of the teacher one finds difficulty in clearly defining what personality really means. It is felt to be one's character, one's individuality, yet it is neither eccentricity nor singularity. The personality of a teacher is a presence, an attractiveness, a magnet leading and urging to the best and highest endeavor; it is a power which awakens dormant energy. Clothed with the knowledge, it is gifted with aptness in imparting it. The teaching personality vivifies and energizes the entire being of the teacher; it is, indeed, the very soul of the teacher. It expresses itself not only thru the knowledge imparted but more particularly thru the character of the teacher whose power is more in what he is than in what he has or does. It makes him a living, intelligent being, an apostle of the truth with a message to mind and heart, a helper in the things which should be known and done, drawing out of us the best we have and urging us to the best we can do. The personality which educates to the best is adorned with truthfulness, manliness, generosity, and sympathy.

Teaching has earned its right to be considered one of the learned professions and should feel something of the divine calling. The question of the personality of the teacher is a question of the teaching office itself and a proper appreciation can only be had in a careful estimate of the teacher's duty to education. No one will question the importance of the life work of the teacher or fail to be impressed with the truth that the vocation to the teachers' office is a most honorable one. Education aims to form men and women, to develop soul as well as body, heart as well as mind—in a word, to train all the faculties of man under the influence of the knowledge of God's intention in creation. The purpose of all education is the apprehending and understanding of truth and its application to life. Until man has seen truth in its beauty and possessed it in its entirety, his complete development is not reached. One of the world's masters of culture, the great schoolmaster of Italy, the immortal Dante, following the thought of his teacher, St. Thomas Aquinas, held that the soul was made to know the truth, to love and possess the good, and to enjoy the beautiful. Dante believed in God and in the immortality of the soul, and his constant axiom was, "God is truth and God is love." He believed that the union of the human with the divine will was the source of the perfection of all character. According to his theory, man's intelligence grasps the truth, his will follows the good, and his heart rests in the love of the beautiful. Dante was a believer in a revealed religion and found the fullness of truth in God's revelation, and the perfect good in the following of God's commandments, and the beautiful in the love of God. No man ever thought, spoke, or wrote nobler words, or reached to higher flights of fancy, or impressed himself more effectively upon the world's thought, than Dante, who, while charming us with the song of the poet in his immortal poems, is still the teacher.

The direction of education varies according to the ideas formed of life and is dominated by them. One would hardly concede to an atheist the education of a theist and it is hard to see how a purely philosophical education would satisfy the Christian. In a rationalistic education the absolute magistracy of the human reason is conceded; in the Christian education the sovereignty of God is the underlying principle. The teacher entering into the field of education as one of its masters should have clearly defined ideas of life and its relationship to God, for no one can fully fit to the end of life who has not realized its source, the purpose of which it has been given and the means by which it may reach its end. Thring says, "The teacher is one who has liberty and time and heart enough and head enough to be a master in the kingdom of life." No truer principle was ever advocated than that which maintains that it is not sufficient to develop merely the natural faculties and dispositions of children but that care should be taken to ennoble and perfect them. To be the instrument in the perfecting of the faculties of mankind, in the upbuilding of the character of men and women, is indeed an important and honorable vocation. To lead the child and youth to the full and proper develop-

ment of all the faculties of his nature is a noble and responsible calling. The Sacred Scripture reminds us of God's promise, "Those that instruct the youth unto life shall shine like the stars in God's firmament." The old pagans understood this, for Cicero said, "What better, what greater service can we of today render to the Republic than to instruct and train the young." All mankind has recognized the sacredness of the calling to mold human minds and lives in truth, to inspire men to the higher and better things. There is something God-like in a teacher. He draws from the heart of childhood love for the beautiful, the pure, and the true. He awakens latent energies, discovers unknown forces, opens up avenues of thought, directs the pupil to the treasure houses of the world's thought, helps self-development, reaches toward the fullness of manhood, in a word, the teacher makes men. Like the farmer who plows his land that light and moisture may enter the soil before he plants the seed, so the teacher prepares the way and opens up the ground that the seed of thought may act upon mind and life. The teacher stands before the world greater than the noblest heroes of military science and conquest. All nations, all peoples, at all times have loved and respected the teacher. There is no stain on his garment, there is no blood on his crown. He has been the philosopher and the benefactor of the people and has won the love of the people by his self-sacrifices and devotion to higher things. At certain times, the teacher has been the object of special favors and dignities. After the pastor of a parish in many places he was the chief man, freed from taxation and military service. According to the laws of the General Assembly of France in 1685 he was clothed in a surplice, incensed in the church, holding a place above the laity, even above the aristocracy of the parish. What a chapter might be written on the teachers who have influenced mankind! From Nineveh to Jerusalem, from Athens to Rome, from Iona to St. Gall, from Paris to Oxford, from Leipzic to Louvain, from Vienna to Harvard, a royal line of men and women who as teachers in the various grades of school have educated mankind.

There is no more interesting page in history than that which tells the story of the great teachers. Coming, as they did in the olden days, from distant countries to the centers of learning, creating, indeed, by their teaching, those very centers, they depended not on kings and nobles for their support but on the truth they taught and the enthusiasm they aroused. Those teachers had minds trained in knowledge, they had drunk deep of the fountains of knowledge and of faith, their lives had been spent in the acquisition of truth and in the mighty mission of the teacher they consecrated their lives to instruction. It was not mere knowledge or method that made the great teachers, it was their ability and personality by which they made knowledge lovable and imparted it to those whom they had taught to love them. As the Apostles at Emmaus felt their hearts burn within them as Christ spoke, so the student feels the personality of the true teacher. The master who really lives is the one teacher we never cease to love.

What made the great teachers? What gave the power with which they impressed the world? It was, first of all, the consciousness that they had a mission to intellect and heart and felt a divine vocation to tell the message of truth in the varied knowledge to be acquired. They possessed truth, they loved it, and they loved to spread it into the lives of others. A prominent German teacher in the thirteenth century calls the schoolmaster "a spiritual father." "Gold and silver," he says, "cannot repay him, for the things of the spirit are higher and nobler than the things of the body. What he taught you remains a possession forever." St. John Chrysostom asked the question, "What is more noble than to form the minds of the youth?" and he adds, "He who fashions the morals of children performs, in my judgment, a task more sublime than that of any painter or sculptor." As Newman says of the teacher, "He is a professor, eloquent, a missionary and a preacher, displaying his science in its most complete and winning form, pouring it forth with the soul of enthusiasm and lighting up his own love of it in the breasts of his hearers." Personality weighs far more than method. The good teacher makes his own method and changes his method according to the varying changes of his pupils. Consecration to work, consecration to one's idea of how best to impart the knowledge he possesses is a key to successful teaching. Psychological insight into personal traits, untiring patience with personal defects, persevering kindness in all circumstances, are characteristic of the good teacher and they spring from sympathy which is fundamental to the teachers' personality. Every teacher should have faith that even in the least promising and least interesting scholar there is a power for good which should be exercised and which it is the business of the teacher to develop. Oftentimes when teachers grow weary of the dull child at school does it ever occur to them to ask how much of the child's inability to learn is due to the lack of personality in the teacher who has become unattractive to the dull child? All men recognize that the teacher, in final analysis, is the school. The best methods are but accessories, the most elegant buildings mere assembly rooms, the most finely equipped laboratories are machines, the skill, the strength, the light, the life, and the use of all these are crystallized in the teacher.

The teacher's office is endowed with sanctity, inasmuch as it is the ministry of God exercised in the interests of truth in the schoolroom. Justinian calls the legal profession "a priesthood of truth," inasmuch as laws rest on justice and equity and inculcate the same. The teaching profession is equally a priesthood of truth for it aims to teach the truth of life and to search after and find the knowledge which satifies the human intelligence, and nothing but the truth of God can give that satisfaction. Of all men the guide in the realm of truth and the agent in the development of it in the minds and lives of others should be a man of faith, a believer in the truth and practical in a virtuous life. He should live to fit himself the more certainly to lead where truth abounds.

The teacher's incentive to conscientious action is in the inspiration which

comes from the duty of education to develop manhood in the fullness of individual good character. How strong the impulse which comes from his feeling that his place is in what has been called, "the beloved ministry of childhood." As the "undershepherd of God's little ones," his life is called to be spent in not merely instructing but in shaping and forming the character, developing toward the light and making life more intelligible and more worth living. A human life is entrusted to him, to be rightly developed by him in order to obtain life's best values. No one who assumes this sacred trust should fail to recognize the tremendous responsibility with follows. It comes to him freighted with the sweetest loves and deepest anxieties of the parents of the children and of the commonwealth to which they are bound by social ties. No more honorable position in life awaits him than that which calls him to the duties of instruction, warning him to be alive not only to the truth to be taught but also to the duty which commands him to be what he would strive to have others become. Gregory the Great says, "No man undertakes to teach art unless he has himself first acquired it by diligent effort." One of the old master teachers of the thirteenth century said, "The master who is lacking in sound learning is preparing to live dishonestly." There is a world of truth in this for unless the child be properly trained for the duties of life, the teacher is not giving value for value and inasmuch as on his part value is lacking, he is more or less dishonest. The teacher needs to be versed in the knowledge of nature and nature's God in order to show the way, to explain the sights, to answer the questions, in a word, to mold character. How can he do this unless he knows with accuracy and shows with clearness? Like the eunuch before Philip, the child may say, "How can I understand unless some one show me?" How can the teacher honestly and sincerely develop in another what has been undeveloped in himself? No man can teach truth who has not apprehended it himself, no man can develop character who has not the fullness of character in himself, no man is accepted as a safe guide to morality who is not himself a follower of the moral precepts. Personal integrity, a character without stain, an upright and moral life, are the soul of the teaching personality and should mark the teacher's life. He should have conscience and morality himself to thoroly develop good morals in others. Children are quick to perceive the difference between precept and practice.

The development of morality is the very essence of all educational systems. Men differ as to what constitutes morality, but it seems to me that the majority of men will accept the principle that the morality that makes for life is built upon the po itive law of God and is developed and maintained by obedience to that law. Unfortunately, there is an ever-increasing tendency to divorce religion from school instruction because of the many and varied differences in religious thought. Serious-minded men and women are noting with fear the results of this divorce, which, among people regarded as educated, are already manifesting themselves in a growing disregard for the very commonest laws of morality. Fifty years ago general education was hailed as the panacea

for all the ills of the social body, but, owing to the omission of positive religion, the general development of education has not fulfilled its promise and among the more cultivated and intellectual, crime has so developed that anyone who studies the social conditions is appalled at the results. Instruction divorced from religion can neither make nor keep men moral. It is this conscientious belief alone which forces the Catholic church to build its educational system upon the principle that the positive religious doctrine which it possesses should be taught its children in the schoolroom and hence, independent of all other systems and not in conflict with them, she builds her schools, her one desire being, that, as the teacher of her people, she will form their character upon the Christian lines and in accordance with the aims and purposes of life as they have been made known to her in the doctrines which she professes. With her, religion in education is not a mere sentiment or a vague responsibility, but a vital force, instructing intelligence by positive doctrine, and demanding the active obedience of the human will to divine law. It is to us the living of the life of Christ as He taught it and the school is an agent in the knowledge of this life. One loves to find that the great teachers have always been reverent, moral, religious, at all times an inspiration to those who would assume the rôle of teacher. They bid us to reverent and religious lives. The devout faith of a man expresses and measures the intensity of his moral nature. The teacher who educates and the system of which he is a part should never lose sight of the fact that faith has its foundation in an ever-living and perfect mind, and instruction should lead to the good and the true as made known to us by God. The teacher or system which weakens the religious beliefs of youth, unfastens life from the mooring to which it clings, draws even one bolt and thus endangers the structure, that teacher or that system is woefully out of variance with the vocation of education. The loss of faith in God is the greatest loss that can come to man, and if that loss comes thru the teacher the injury is greatest. The irreligious, the irrevelant teacher who sneers at religion or belittles it can have only an evil influence upon the character which builds itself upon faith and recognizes duty to a revealed religion.

The teacher should have not only an intimate and intelligent acquaintance with his work in all its parts but he should be familiar with the methods best adapted toward the proper instruction of others in that knowledge. He should be familiar with methods, yet never become a slave to a method. Trained in the methods of others, a teacher is apt to become a mere machine, a simple automaton at the teacher's desk, a wooden teacher with someone else's unassimilated methods, and is not worthy even of being called a poor apology for a teacher. The teacher should aim to be himself; no one can ever successfully be anyone else. Imitators are on the stage; they are out of place behind the teacher's chair. The teacher needs to guard himself from fads and hobbies and avoid the folly of adopting untested theories. Our ready-made methods have ruined many a good teacher who felt that he had to follow them because a school board so decreed. A student, a lover of books, with constant aim

toward the culture which tends so much to embellish his work and make it more productive, the teacher should never cease to improve himself that he may become a cultured gentleman. The Rt. Hon. James Bryce, speaking recently on the "Teaching Profession," said:

> The educational profession is work which marks out the person who does it as an educated and cultivated person, and therefore when you meet a teacher you are entitled to assume that he or she possesses a superior measure of cultivation and education.

Liberal education broadens his views, widens his horizon, makes him more tolerant of the opinions of others, familiarizes him with the different viewpoints of historical discussion, makes him a student in the world's school, and removes him from the provincialism which is oftentimes responsible for the narrowness and prejudice which creep into men's lives. Like the mechanic, the teacher should be familiar with every part of the machinery with which he works, the model he has to copy, and the use of the tools necessary, so that the work may be a finished product from the hands of a master. Such should be the teacher's ambition—to excel, to aim at the finished product in the thinking man, who, under the influence of the teacher, realizes what he has within him and begins to articulate, to advance, and to add to the world's store of knowledge. It is not enough for the teacher to possess facts which he teaches but he should strive to reach the spirit of the fact which would give him the very perfection of his knowledge. He should journey along the same road by which the facts came, striving to share the experience of the master as he worked out the problems, one with him in joy and sorrow, experiencing his rewards and punishments. One can never fully know Dante until he has entered into the spirit of Dante's soul in his joys and sorrows. Tennyson never could have written "In Memoriam" were it not for the bitterness of the loss of Arthur Hallam.

> We need the right kind of teachers [says Münsterberg]; teachers whose interest in the subject would banish drudgery. We need teachers with inspiring enthusiasm for their science which springs from a profound scholarly knowledge.

The call is for teachers with a teacher's personality, full of life, the living teacher; full of value, giving of the wealth of knowledge; full of certainty; stable and sure of what he knows. Such become great teachers and their schools are successful. The teacher seeking for the personality that will educate keeps before him the high ideals of teaching and strives to master the problem of good teaching. He never becomes a mercenary or a hireling but is always a lover of the work to which he has consecrated his life. Personality like that begets enthusiasm. Bulwer-Lytton in his *Last Days of Pompeii*, says:

> Nothing is so contagious as enthusiasm. It points the real allegory of the tale to Orpheus; it moves stones, it charms brutes. Enthusiasm is the genius of sincerity and truth accomplishes no victory without it.

In Winthrop's *Cecil Dreeme*, the professor was one about whom a few students sometimes were said

to buzz as hungry bees in a sheep pasture in late fall about a dried-up mullen stalk on the one hand and the fennel stick by which Prometheus brought down the divine fire, on the other.

The teacher with the music of truth calms the human passions, develops character and leads to victory. When enthusiasm dies out in the teacher, life goes with it, usefulness is at an end, the teacher's sun has set. Magnetism should be a characteristic of a teacher's personality. He should be an influence, an inspiration, a help to all who come in contact with him. He should attract all toward him because of the truth which he stands ready to dispense. The true teacher can never part from a pupil without feeling that some of his life has gone from himself and entered into the pupil's life. It was this that made Plato the worthy disciple of Socrates and gave St. John the insight into his Divine Master and made Suarez the expo.itor of St. Thomas Aquinas. It is personality rather than system that in the ages has made the master live in his pupil. As Newman so well says,

> The academical system without the personal influence of teachers upon pupils, is an Arctic winter, it will create an ice-bound, petrified, cast-iron university and nothing else. Influence precedes law, personality precedes system. With influence there is life, without it there is none.

Benson, in his recent book, *From a College Window*, says,

> I have lately come to perceive that the one thing which gives value to any piece of art, whether it be a book, or picture, or music, is that subtle and evasive thing which is called personality.

The fact is all we remember of a good teacher is what he taught us. We seldom, if ever, think of how he taught it. Dean Stanley, speaking of Rugby and Arnold, said:

> The one image that we have before us is not Rugby but Arnold. It was not the master who was beloved or disliked for the sake of the school, but the school which was beloved or disliked for the sake of the teacher.

Great teachers never die, their influence lasts forever, their very names are an inspiration. The annals of the universities which stand for the scholarship of the world are fragrant with the characters of teachers whose influence made students flock to them from all quarters. They went to hear Aquinas and Bonaventure and Erasmus and Arnold. They were men who knew men's nature as well as they knew their lexicons. They were not those pedants of whom Carlyle writes, "who can give no kindling because in their inward man there is no live coal but all is burned out to a dead grammatical cinder." Socrates, Plato, Aristotle, stand even now on the streets of Athens to teach mankind their ideas of philosophy; Galen, Archimedes, Euclid, still give luster to the Alexandrian museum; Pantaenus, Clement, Origen, still appear in the school of St. Mark in Alexandria. Hilda is at Whitby, Gertrude at Neville, and Hortsvita at Gandersheim; Albert the Great, St. Thomas Aquinas and St. Bonaventure yet illumine the University of Paris; Augustine, Columbanus, Benedict, Alcuin, Bernard, Loyola, Pestalozzi, De La Salle, Newton, Agassiz, Arnold, Barnard, Kepler, and Laplace still teach us. The story of

the university, college, and school is generally the story of an individual teacher founding the institution, and a corps of teachers taking up with enthusiasm the work begun by one in faith and hope and charity. They have burned their lessons deep into the daily life of all portions of mankind. Like Socrates they would rather write upon the hearts of living men than upon the skins of dead sheep. These form the nobility of the teacher's world. Into such ranks you have entered. The ideals set by them are high ideals and all teachers should aim to realize them. Not all succeed to greatness, at least to the greatness of fame. Yet a large number in their own way, and known perhaps only to their pupils, are quietly doing God's work in education by their personality as good teachers. There are thousands of honest, simple teachers hidden in the obscurity of the schoolroom who will never figure in the history of education, but who are doing in their own way marvelous work in education. Teachers fail, are inefficient, unsuccessful because they are oftentimes out of place, without enthusiasm of their vocation, lacking in personality and sometimes in fitness. They have lost heart in their work and thus become stumbling-blocks rather than helps to education. The teacher never had greater scope and honor than in our day. Every incentive is given to him. The family, society, the state and the church invest him with honor and responsibility and this should develop the best that is in him.

It is well for us to remember, however, that the public exacts character and equipment and devotion on the part of the teacher. It is well for the public to remember that life's service can best be given when free from the worries of life. Educational work ought never to be allowed to become drudgery, and educational service ought to receive a proper remuneration. A teacher ought not to be expected to live on faith alone or be made to feel that ideals will supply the necessities of life. While it is true that no class gives better service, and from no class is more expected, yet it is also true that no class equaling in any way its requirements is so poorly paid. If education demands that men and women of the world make a life-work of teaching there must be more consideration given to proper remuneration for service, otherwise the best minds will not seek for such employment and education will realize tremendous loss.

It is the glory of our manhood and womanhood that noble men and women in all ages have consecrated themselves as the teachers of mankind. A mighty army of self-sacrificing and devoted teachers is in the schools today, recognized as the "salt of the earth and the light of the world," the benefactors of mankind. Their names are a benediction and "men rise up and call them blessed." The important factor in a teacher's life is himself. "What one is," as the old saying has it, "goes before what one does or has." The teacher's personal character is one of his prime assets. The high-minded, pure-minded, fair-minded, noble of instinct, gentle of manner, rich in sympathy, loving the good, loving the school, loving the children—that teacher is among the benefactors. The lives of great teachers of the world are sources of

strength to the teachers of every age. The systems created by their experience enter into the history of education which should not narrow itself to the modern development of scientific pedagogy, but should be broad enough to give credit to all the systems by which the world has been taught and civilized.

My word today is an appeal for personality, the living characteristic of the good teacher. Give us men and women with a vocation to the teacher's desk, with fitness for their work, with a sacred anointing of the teacher's mission upon them, and it matters not where you place them. Education will crown them as apostles and the world will honor them as benefactors. The greatest teacher the world ever knew, the Divine Saviour, taught from a ship and along the banks of a river and by the sea, and His teaching revolutionized the world of thought and life. Socrates of old, among the pagans, taught in the groves of Academe; the monks sold their wisdom in the market places to all who would listen; schoolmasters who were the foremost scholars of Europe taught the youth of Ireland in the centuries of persecution under the white-thorn hedges and in the bogs; Magill made his school in the loft of his father's wagon house. The pioneer country school teacher knew little of scientific pedagogy, but he had knowledge and common-sense and he laid the foundation of character and scholarship in his many grades of scholars. All these were types of the men who have educated the world. It mattered not where they held school, it only mattered that they gave the lessons. With personality the teacher may enter into the treasure houses of the world's best thought with the consciousness that he will be able to transmit it to others confided to his care. With personality the teacher may hope to lead mind and heart to truth and virtue, to teach children the lessons of nature and the truths of nature's God and thus to mold character in goodness of life. A man or woman with the personality of the true teacher on him has God's mission and God's blessing will accompany him. Never was there a time when more was demanded of the teacher than in our age and woe betide us if we fail in conscientious obedience to the demand laid upon us.

To the noble teaching body of our Republic in this Association, I bring cordial greeting and a heartfelt welcome to this City of the Angels. I bring also a kindly message of greeting from that great body of consecrated men and women who in the world-wide system of Catholic schools, are doing the work of education in the very best spirit of self-sacrifice and noble endeavor that the blessing of the highest possible knowledge which religion and nature offer may come to the children confided to their care under the benign influence of that religion which they profess, and directed by the church to which they conscientiously profess allegiance. The aim and purpose of that great body of devoted teachers is the development of men and women fitted to take their place in life and ready for all the sacrifices which may be demanded by God and country. In their name I bring you greeting and assure you that in their entire system of education, from kindergarten to university, maintained at emendous sacrifices, they are actuated by that great principle which under-

lies all true education, to develop a cultured manhood and womanhood true to God and country and worthy with their fellow citizens to be intrusted with the interests of our great Republic.

THE ECONOMIC RELATIONS OF EDUCATION

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The purpose of this paper is to offer a few remarks that may suggest the fundamental importance of education from the standpoint of the economic relations involved. A study and interpretation of the physical forces of the universe naturally followed with the growing intelligence of primitive man. We can understand why with limited intelligence he should stand in awe before these forces and that the study of them would increase as his intelligence widened. From the superstitious worship of primitive man we may trace a steady progress to the reverent mind of modern science and philosophy. In the ultimate analysis of these forces recognizing the universal reign of law and the equally manifest fact of personality, a rational explanation led up to the conception of a supreme personality we call God. Modern thought, reverent in the presence of this great First Cause, recognizes man as the crowning masterpiece of the universe, combining the highest expression of the physical with the inspiring ideals of the spiritual. In the study of the development of the world we recognize man with the motives and forces that move him as the determining factor in the evolution of what we call civilization. It is not physical force or physical resources, but intellectual, moral, and spiritual forces represented in man that determine and fashion civilization. These physical forces and resources are the responsive servants that a masterful personality may direct for the comfort, convenience, and further progress of the individual and the race.

In the increasing mastery over physical forces, which to a large degree measures the progress of man, two important elements are present—that of religion and that of education. These two elements, to a considerable extent, may be interpreted each in terms of the other, for by no distinct cleavage may we separate the area of religion from that of education. This paper, however, presents the place of education as one of the fundamental forces determining civilization.

It is a common conception current even among educators that education is a burden that civilization must carry as a means of perpetuity and progress. We must educate or we must perish is a familiar war cry. With this has been associated the teaching that education must be supported as a gratuity or charity and as a kind of guarantee of the perpetuity of civilization. There is a truth here, but associated with it has been a notion that civilization or more specifically the taxpayer, with commendable generosity has been supporting education as a burden placed upon him because the law so provided. The purpose of this paper will be to suggest that this is a fallacy, and that

the truth is that civilization itself is the burden, if we may use such a term, which education does carry. That is to say, civilization is not the cause but the result of education. To be sure there are relations of mutual helpfulness, but ultimately in our analysis I maintain that education lies fundamentally at the basis. If this be true our conception of its importance and, therefore, of its support should be modified.

Political economy has for a long time directed our attention to land, labor, and capital as the three elements and forces that determine the production and consumption of wealth. Wealth has been regarded as the necessary condition of progress for the individual and society. In our economics we have placed undue emphasis upon wealth as influencing man and too little emphasis upon man as influencing wealth. This fallacy will be found to lie in the Malthusian theories. Back of all these forces treated in political economy, however, is the personal force of the individual with which education has to do. In the analysis of society and the forces of civilization we shall discover the character of the individual as the final explanation of all progress. The progress of civilization is measured in terms of the progress of man. Here is where education finds its field and wins its triumphs. The individual is at once the cause, the interpretation, and the justification of civilization. In seeking, therefore, to develop the possibilities of the individual we are seeking to develop and make possible literally a new heaven and a new earth—a new civilization. In the study of the economic relations of education let us first state a few of the commonly accepted results of education. These are that, (1) education develops the initiative; (2) education develops power, skill, and efficiency; (3) education develops variety of talent, of taste, and of capacity for enjoyment and service; (4) in the development of this variety education awakens desires, ambitions, and ideals that are the evidences of culture widely separating the educated man from his primitive ancestor; (5) education arouses and sustains the higher life expressed in better physical conditions, in wider intellectual sympathies, in a clearer conception of ethical relations, in a profounder spiritual unity, and in a practically unlimited diversity as expressed both in the individual and his achievements; (6) education does modify and change the character of both the individual and the race.

With these results of education even imperfectly realized, what shall we say of their economic importance? First of all the educated man is the man of awakened desires. Desire is the basis of economic demand. He is the man not of a few and simple wants but of many wants. This sense of want, this increased desire, is the result of an intellectual and social awakening. The more education the more numerous are the wants and the more imperious the demand. Education initiates, organizes, and emphasizes a person's desires. It opens the vision of better things and develops the capacity for enjoying them. It cultivates the desire until it arouses action to meet it. Here are the essentials of a market. In fact, the educated man is the

market and creates the market. He makes the demand and furnishes the supply. Moreover, the more the educational process is encouraged the more numerous and wider the reach of these desires. In a very real sense the perception and enjoyment of the best turns us away from the less worthy. The mastery developed thru education makes the satisfaction of the elementary and necessary desires easier and of the higher and newer wants possible. It is not so much, therefore, the increase of goods that raises the standard of living as the mental state of the man who has come to taste the higher life. Thus the luxuries of one day become the necessities of another, which is but another way of saying that education has so changed and widened the horizon of the individual that he makes a larger demand upon the supply of the world for the things with which to sustain his life. The economic importance of the educated man as the world's best and most stable market will steadily gain in appreciation.

Moreover, the fact of variety developed thru education is fundamental in the question of a varied industry concerning which we hear so much. Variety of desire calls for a division of labor making demand for every possible talent. It is the highly diversified society, itself the product of education, and not primitive society, that can make profitable use of a variety of talent. The limit of this law of diversity of talent is foreshadowed only by the suggestion of the limit of education and the human mind. As has been well stated,[1]

> The progress of society consists in the differentiation of man's relations, and that every differentiation in the social polity is simply an effort to better adapt his social environment to the more complete gratification of his wants.

The wonderful diversity and variety in the products of modern industry with the manifest tendency toward a better grade of finished product, has come about thru an education of the ordinary purchaser. He has improved the character of the demand by insisting upon better products and thus led the way to better wages, firmer markets, and a clearer margin of profit. This variety of taste has not only affected the variety of product but has by specializing industry opened up an opportunity for talent hitherto unusable and directly checked the fierceness of competition while encouraging the development of initiative. By this process every man with a new idea, a new invention, a new efficiency, a new service, has practically the whole world for his market. Beecher with his pulpit had no competition and the world for an audience. The modern telephone and other inventions have created business, increased the efficiency and comfort of society, and made a world of new relationships. Now education is not the source or cause of monotony. God has made this world a place of infinite variety and beauty. To man he has given a diversity of gifts. Education develops this diversity and thus enlarges the world of ideas, of men, and of markets. Into this larger world the teacher is constantly introducing the student. He is leading him away from the nar-

[1] Gunton, *Principles of Social Economics*, p. 80.

rowness and provincialism of ignorance. The primitive men all look alike, feel alike, act alike, and live in the same narrow world. Here the struggle for existence and the survival of the fittest have free play. The economic conditions are the simplest if indeed they exist at all. Education promptly changes all this. The awakened individual becomes the producer, the frequenter of the market place, the larger consumer, society, emerges, and civilization develops. This contrast is sharper where we recognize that education develops individuality and initiative while protesting against any and all attempts to produce uniformity of result and against all school methods that hamper the free expression and development of the individual. That is to say, the development of man's intellectual and social horizon makes a demand for capital, for human labor, and for all that goes to make up the sum total of human industry. The practically unlimited variety of modern human industry is due to the widespread influence of education. So long as education was for the few and confined to the study of a few subjects the latent talent of the millions was of no service. With the dawn of universal education there has come an awakening among us that has stirred the multitudes and affected every line of human industry. The technical term "division of labor" has a new and richer meaning than Adam Smith ever dreamed of. In the matters of food and clothing we have passed from the simple and unattractive to the beautiful and the useful. The modern merchant, manufacturer, and carpenter are in league with the artist and the engineer, to make the matters of commerce meet the critical taste of the educated man. So true is this that everyone enters protest against the lack of taste in architecture, of beauty in our cities, of comfort in our homes, and, indeed, of the unlovely everywhere. The economic importance of all this striving for better things due to the inspiration of education has not been clearly appreciated or fully acknowledged. The school, the scholar and the influences they have set at work are making fortunes possible and employment a fact to millions of people. It is the man that makes wealth possible; not wealth that makes man possible. The educated man is constantly engaged in a world-building process in which he must provide both the labor and the capital.

Moreover, it may be well to call attention to the persistency of the demand made by education. The educated portion of the world has come to know and appreciate the best things. It will persist in its demands for these things. This persistency of demand is the star of hope in our democracy. Economically speaking, it is the key to stability of markets, of values, and of prices. The educated man persists in his demand for the things he appreciates, and this persistence of demand has more to do with the stability of markets and with perpetual prosperity than any one other element. I should go farther and say it was more important even than tariff legislation. We have been slow to see that men and not laws make markets. In a broad way we need to look only to the fact that in the four great nations where education is most developed the markets are best and famines are fewest. The political econo-

mist of the future will see more than a mere coincidence in the fact that the more broadly educated nations have the most stable conditions financially, commercially, industrially, and socially. The progress of civilization is due to the happy co-operation of the conservative and progressive elements in society. Modern education, while sweeping away the conservatism of superstition and tradition and checking the tendency to forget reason on the part of the radical, has given intelligence and direction to both, thus insuring a healthful progress. It is not a question of mere population nor of natural resources that makes the contrast in permanency of markets, of prices, of values, and of commerce between the United States, Great Britain, France, and Germany on the one hand, and China and India on the other. The Philippine problem is one of better roads, better houses, better clothing—in a word, the things that result from a better education. The first man in demand after the treaty of peace was the teacher. He was fundamental in the economic development. The government wanted markets. It was not a mistaken policy that said the teacher would produce them. His method of work is to hold up the ideal and then urge the pupil to pursue it persistently at any cost. No true teacher ever lowers that flag. This elevation of the individual which is constantly going on in every quarter of the land is preparing a persistent demand, to which only a persistent supply is adequate. With the increase of education not only the quality of this demand persists but the quantity of it is enlarged. The essential element of material prosperity is provided every time a well-educated person appears.

Again, it is usual to observe that education develops power, mastery, and efficiency in living. These are the qualities that enable a man to support himself and to maintain the highest standard of living toward which education constantly tends. The economic importance of this may well be emphasized. The primitive man knows little of wealth or a leisure rich with pleasure. He is dependent upon the gratuity of nature for a considerable portion of his comfort and pleasure. The educated man is also dependent, but upon gratuitous nature plus the initiative of an awakened individual. Now the most characteristic features of modern progress lie in the area of the mastery and dominion of the educated man. The whole wide field of applied science and of modern inventions has been opened thru the operation of education. This has changed the standard of life and human comfort and brought new life and outlook to commerce and trade. Speaking broadly, it is manifest that the most widely educated nations of the earth have been most influenced by this new standard of life and are also the best markets of the world. The less-educated nations are the markets for only the surplus of commerce, and no special vision is needed to see that as education makes its progress in these countries the markets will widen and develop. There is an economic importance in the fact that the sultan of Turkey is riding in an automobile, especially when we consider that a short while ago the same authority opposed the introduction of the sewing machine and the telephone. Education even in Turkey

steadily raises the standard of living and develops a new market. It has been said that the obstacles to progress are in men and not outside of them. With equal or greater truth it may be said that the cause of progress is in men and not outside of them. Because education reaches the man first and awakens to a new world of power and possibility it becomes the source of all progress. The awakened man means a new world—a new market, and new conditions of life. Education is thus steadily bringing man to his own. Thru increasing intelligence, a better interpretation of the universe, a better knowledge of its laws and forces, a better control of his own powers, man is steadily achieving mastery and dominion and realizing his own freedom. The economic importance of this freedom realized in men merits an attention and appreciation to which the future will give more adequate recognition and expression.

One other feature may be mentioned—the relation of education to industry. We have revised our conclusions on this point. The time was when many believed education would relieve from work. The truth is now recognized that education leads into work. It is no mere coincidence that the educated people of the world are the busiest people. The most active people of the globe today are found in the governments where education has a free opportunity. Education if true leads to service—a service that shall not end in any private ambition, but in a genuine contribution to public efficiency. Education not only fits for service by developing power, skill, and efficiency, but by presenting the ideals that lead men on to duty and achievement. An educated idler is absurd if not unthinkable. Men are coming to distinguish between "working for a living," and "working as a calling," and living as the crowning glory of service. Education makes a man larger than his greatest deed, puts into him the ideals that lead to the glory of achievement. The atmosphere of every schoolroom is charged with the currents of industry; every scholar lives in a world of action. The idleness, indifference, and the vices that go with ignorance are cast out by education as so many devils, and the individual redeemed to industry, thrift, service, and character. This attitude of the educated man is of profound significance in determining the character of the world in which men may live. Educated men will not contemplate with satisfaction a world of idleness, indifference, or stagnation. The best families where education and wealth have flourished for generations manifest this high spirit and refuse to consider the possession of wealth a call to idleness, but regard the possession of talent as a call to service. This is the legitimate outcome and may be accepted as the first fruits of the better harvest to which education is bringing us.

In summing up the economic relations of education we return to the teacher. He is the masterful personality in the presence of all these forces, who organizes, directs, and stimulates the uprising generation to achievement, mastery, and freedom. So the teacher, whether he be teacher of religion or of education, of philosophy or of science, of agriculture or of mechanic arts, of manual training or of domestic science, of language or of morals—in any or

all of these places the teacher is, indeed, the master who trains the men who make markets, commerce, and even civilization a possibility. What we do for education is not then a burden; it is rather an opportunity. The money we give is neither charity nor the payment of a debt; it is an investment to guarantee the perpetuity of man and of markets, of history and of literature, of our own achievements already made and of those of our children yet to be made; in a word, the money invested in education is an expression of both faith and desire that a progressive civilization shall not perish from the face of the earth.

DISCUSSION

T. A. Mott, Superintendent of schools, Richmond, Ind.—The lateness of the hour, Mr. President, prevents an adequate discussion of this excellent paper. No one has dealt with the relation of education to wealth in a more masterly way.

Real education is, and must be, the foundation of civilization. Civilization, man's spiritual environment, is made up of man's art, his science, his literature, and his religious beliefs, together with his institutional life. Into one of these divisions we can put each of the results of human aspiration and human achievement. The education of any normal child destined to life in a free society must include a knowledge of, and a development in, each of these elements of social activity, as well as an insight into them all and a sympathy with them all.

Life in its fullness means much. It means youth and old age. It means one day and all days. It means the windows of the soul shall have been opened to the beautiful, the true, and the strong. It means that the body, mind, and heart shall be manly and strong.

Education is a unitary process. We cannot think of the end of the school being either art, literature, science, or religion. Neither can we think of the end being parenthood, economics, industrialism, or trade. But we must look on man in the full roundness of character, in all the beauty of body, of intellect, of heart and will, beneficent and strong as a worker, as the ideal product of the American common school. However, in this discussion we are dealing with the school as affecting economic conditions. These conditions include questions relating to capital and labor, production and distribution, supply and demand. In the military world it is recognized that the training of the man behind the gun, or the mind behind the gun, is the most effective element in military organization. The army of educated soldiers is the most powerful military force the world has known. The education of the mind and hand that guides the plow or directs the plane, the education of those who work in the mill, in the factory, or in the mine, determines to a large extent the amount and character of the output of these institutions.

For hundreds of years uneducated men have passed by unnoticed vast veins of precious metals and valuable ores hidden but slightly in the earth, while the educated man of today is opening mines in every part of the world whose products are to bless and enrich civilization. It is clearly recognized that the output of mineral wealth depends ultimately upon the man trained in mineralogy and engineering.

In agriculture the influence of the educated worker is no less apparent. The product of the field and garden can be increased many fold by the educated farmer. The millions of acres supposed to be worn-out lands in New England and Atlantic states are today lying idle because of the lack of knowledge on the part of the agriculture workers in those states. Millions of acres of supposed arid and desert lands between the Mississippi and the Pacific are today being developed into rich and valuable farms by the hand of skilled and intelligent labor.

The agricultural colleges thruout America are increasing the product of the land coming under their immediate influence to an extent that seems a little less than a miracle. The growth in production of the American farm and garden resulting from the work of the agricultural colleges will annually pay a hundred fold the cost of such education.

In every field of human activity, we will find it true that the education of the worker will largely increase the production of material in both quality and amount.

Again, as has been fully shown in the paper to which we have just listened, the demand for the best products coming from the hand of skilled labor is greatly increased by the education of the people, and the markets of a cultivated community tend always to be steady, and demands to be strong.

A few thousand dollars spent each year in any city in art education will result in an increased demand for those necessities of life which are beautiful and of a high grade. Technical education in domestic science, in any city, will result quickly in a demand by the homes coming under the influence of the school for better food-stuffs and a higher quality of the necessities of life.

This line of thought can be followed out into all the departments of modern life.

The learning most needed by the community to develop its highest needs must find its basis in the courses of study of the common school. Childhood is always the gateway of the race, and the doorway of civilization. Those forces in civilized life desired by the state must find their foundations in the school. The highest element of national prosperity and growth as well as of life and character must always find their beginning in the common schools of the people.

THE BASIS OF GRADING TEACHERS' SALARIES

EDWIN G. COOLEY, SUPERINTENDENT OF SCHOOLS, CHICAGO, ILL.

My topic is likely to be an unpopular one. It is associated in the minds of some with low salaries and increased demands upon the teacher. There is no such association in my mind. On the contrary, I believe the profession and the schools are suffering, financially and otherwise, from the competition of the incompetent teacher.

Everyone who has thought about the salary question, recognizes that the competent teacher is underpaid, whether we consider the value of her services to the community, or whether we compare the demands made upon her with those made upon other members of society. The teacher has not fairly shared in the prosperity which has seemed to overwhelm the country. She has been compelled to pay 20 per cent. more for what she buys, while receiving perhaps a 10 per cent. advance in salary. In some large and flourishing communities, it cannot be said that her salary has really advanced at all during the last ten years.

No relief—complete relief—can come to her without increased revenues. It is unwise, as well as unfair, to dispute or ignore this. We can, however, ask the question as to whether it is not possible so to distribute the sum available for teachers as to reward the faithful and efficient, as well as to arouse or drive out the incompetent. Their competition degrades and demoralizes the profession.

There is some confusion in the minds of civilized men today as to what is the proper basis on which to estimate the remuneration granted for services

rendered. There have been attempts made to justify the giving of an equal share to each man, regardless of the value of the services rendered. This method has little to recommend it except its simplicity. Sometimes it has been proposed to reward each man according to his wants, altho no one has ever been able to describe a common measure which we might safely use in comparing the wants of different members of society. Sometimes it has been proposed to reward each man according to his labor. This requires some common measure by means of which we may estimate and compare the exertions made by the workers, but universal commensurability of exertion is only a dream of the communist. If we follow the suggestions of some economic writers and use time spent in labor as our common measure, we fall into absurdities. It is difficult to estimate exertion, pleasure, or pain by the clock. "The Procrustean bed of time would distend and mutilate labor, and all liberty and equality would breathe its last upon it." Under a scheme of this sort, idleness would grow apace and productively disappear. If twice the reward were given for taking double the time for doing a piece of work the main motive for efficiency would die. Mankind seems on the whole compelled to act on the principle of distribution that each member of society shall be remunerated in proportion to the value of his services.

It seems fair to consider the question of teachers' salaries and promotion from the standpoint of services rendered the community, from the standpoint of the efficiency of the teacher. If the schools are to be carried on in the interest of the rising generation, if the welfare of the children in them is the fundamental consideration, we must be governed in fixing teachers' salaries by estimates of the value of the services rendered by them. Any consideration is invalid, except in so far as it affects efficiency. An increase of salary, based upon the length of service only, can be defended successfully, so far as it can be shown that length of service conduces to greater efficiency in the work of the schoolroom. Differences of salary, based on sex, can be defended only by showing that sex is a factor that of itself makes a man or woman more or less efficient as a teacher. Increases of salary, based upon zeal, scholarship, and student-like habits, must alike be tested by this criterion of efficiency.

It is believed that a teacher in a good school will increase in efficiency for four or five years even if she relies on her schoolroom experience for information and inspiration, but it is doubtful whether this increase will continue over a longer period unless the teacher is induced in some manner to study and prepare herself for better work. Unless she does this, the chances are that before the end of the decade a decline in efficiency will set in which will proceed steadily as the years go by. A schedule of salaries, then, may include a lower group making provision for yearly advances covering a period of four or five years. At the end of this time, if the teacher does not give evidences of continuous increase in efficiency, in professional zeal, and in student-like habits, she should be stopped. No teacher should be allowed to advance in salary after she ceases to advance in efficiency.

The efficiency of the teacher, as shown in her daily schoolroom work, is the first consideration to be taken into account. The second element, her intellectual and professional growth, as shown by her outside study and interest in her profession, is subsidiary to her schoolroom efficiency. They are, however, so closely related to each other that it is proper to consider both in estimating the fairness of the demands of the teacher for promotion. If she cannot and will not meet these demands, there is no valid reason, considering the question from the standpoint of the interests of the children, for promoting her and paying her a better salary. Teachers should not be encouraged to get into our school systems and then let the clock work.

Scholarship and habits of study are factors that must be considered in estimating the efficiency of a teacher. No teacher who is not a student can long remain really efficient. If a teacher wishes to impart a piece of knowledge she must, as Fitch says, not only have appropriated it herself, but she must have gone beyond it and around it. She must see it in relation to other facts and truths. She must know from what it originated and to what it is intended to lead. She must have an ample margin in reserve for dealing with unexpected questions and unexpected difficulties. The teacher must study educational processes and educational philosophy and methods; her study cannot cease with her preparation for entering her profession, but must be life-long. She must not lose her sympathy with the learner—a sympathy that she can retain only by continuing to be a learner herself. It is only in this way that she can avoid the depressing effect of constant association with immature minds and ideas. It is true that many good students of books are poor teachers and something more is required of a teacher than ability to absorb book knowledge. Still, the chances are extremely large that one who is a student and who has learned to use her mind in a systematic way will be a better guide for other students than the mere empiric.

It is, however, very important to estimate the relative value of schoolroom efficiency and advance in scholarship and professional zeal in such a way that they may not counteract each other. The teacher should not become so interested in academic study that she will forget her main business, which is the work of the schoolroom. The teacher may use up too much energy in carrying on outside study to the detriment of health, as well as schoolroom work. We must, therefore, in presenting any scheme for promotion, be careful not to emphasize mere academic scholarship too much.

In making up an estimate of a teacher's fitness for promotion, schoolroom efficiency should count for more than her academic study. We must arrange to put a constant premium on keeping up the work of the schoolroom for which the teacher is employed. Experience has shown that this is no imaginary difficulty. At the same time, we ought to offer some inducement to keep the teacher from mistaking purely mechanical efficiency in handling a schoolroom, mere control of pedagogic devices, for real pedagogical power and

spiritual growth. An estimate based upon schoolroom work only tends to overemphasize this element in teaching efficiency.

The problems of estimating schoolroom efficiency, intellectual growth, and scholarly zeal present serious difficulites to the supervisor. In making the estimate of schoolroom efficiency, we must endeavor to provide a system of recording efficiency that will be fair to the teacher, fair to the children, and not a perfect nightmare to the principal or other administrative officers responsible for making it. Sometimes this estimate has been made in percentages by the principal, supervisor, and district superintendent. It is difficult to protect the schools under this arrangement on account of the inclination of supervising officers to escape trouble by boosting the marks. According to the *Brooklyn Eagle* a few years ago, the marks of over 90 per cent. of the teachers in Brooklyn were over 90 per cent. In Chicago, at the end of five years, in marking for promotion, it was found that 96 and a fraction per cent. of the teachers were marked so high as to entitle them to promotion. It is evident that these estimates had ceased to properly discriminate between the degrees of efficiency of the teachers. In 1906 the Board of Education passed a rule requiring principals to mark all teachers as either "efficient" or "inefficient," thinking that this simpler estimate would result in greater fairness to all concerned. Under this arrangement, after two trials, it appears that over 98 per cent. were marked efficient and entitled to promotion. We found ourselves back where we began, with a flat rate for everybody, or with the clock doing the work. The rule has been abandoned and some modification of the percentage marking will again be employed.

There have been many propositions for organizing supervisory boards to make this estimate of efficiency. It has been proposed to have a commission composed of educational experts who were not directly concerned in the supervision of schools who should visit the schoolrooms and pass upon the efficiency of the teachers. This would relieve the principal of responsibility, but the estimates of the work of teachers made under such conditions would be worth little. Such commissions could not appreciate the conditions under which the work was done, and no teacher, under such inspection, would be at her best. Then, too, it would separate the administrative work of the school into parts, would set up divergent standards, and reduce the principal to a mere clerk. In my opinion, the only person who can safely be intrusted with this estimate is the principal of the school, who is on the ground and knows the facts. Even he must be placed under restrictions, and it must always be possible to appeal from his decision. It must always be possible to protect the teacher against favoritism and inefficient supervision. The problem is difficult, and many of our superintendents will prefer to permit teachers to advance on length of service only, rather than attempt to estimate their schoolroom efficiency.

On the other hand, the problem of passing on academic advance or intellectual growth is not a simple one. You may use an examination. If you

do, you will quickly discover the limitations of such a test in estimating efficiency or growth. Every teacher recognizes that many things cannot be determined by an examination. Everyone recognizes that it is not an entirely satisfactory agent for selecting or promoting teachers. We may use them, however, as an auxiliary, and there seems to be no special reason why they are less effective in aiding in the work of selecting or promoting teachers than in selecting or promoting other public servants.

As Latham has pointed out, an examination will test one's accuracy, the fullness of one's memory, and one's power of concentration. We can see that knowledge has been got, and we know that brainwork has been done, to get it, in addition to indications of strength or feebleness of will, and we can find out pretty well from a set of papers whether a man knows his own mind or not. Then, too, it seems fair to assume that there is some relation between knowledge and power. We work consciously or unconsciously on the theory that the man who *knows* is the man who can *do*, and we believe that the only reason why people should know is that they may be able to do. It seems natural, then, when it is impossible to submit the applicant to a complete test of his power to do, to ask him to submit to a test of his knowledge.

It has often been urged that an examination will not determine so much the applicant's ability to do the thing desired as his ability to say how it should be done. Sometimes this can be learned from books, but the skillful examiner will usually be able to tell the difference between experience in doing the thing and knowledge about it. Then, too, it is fair to assume that the person who has the knowledge is interested in doing the thing—that there is relation between knowledge and interest—knowledge of a particular kind of work and interest in doing it. The man who has the best sort of knowledge about some particular piece of work is, other things being equal, the most interested in it and the best prepared to do it.

Then, again, teaching calls for ability to state clearly what one knows. It is part of the equipment of a teacher to be able to talk, to explain, to interpret. The teacher who is dumb in the presence of a problem demanding solution, who lacks the power of expressing herself definitely and accurately must, in some degree, be unfitted for the work she is attempting to do. An examination will test this.

While providing for the moderate and rational use of the examination to determine efficiency, it will be advisable to encourage in its stead the taking of courses of instruction at colleges or other higher institutions of learning. Such systematic work done under the right conditions will do much to keep the teacher alive and interested in her work. Such work, however, must be carefully looked after; only good work must be recognized and even that must be carefully inspected if the school system is protected against fraud, as well as against the waste of the teacher's time and strength. Much of this outside work should be done under the advice of the principal or district superintendent with a view to its direct bearing upon the work of the school. It is, however,

important that the work should not be so thoroly supervised by others that the teacher's interest or the teacher's hobby will be crowded out. If the teacher's hobby is carefully excluded, much of the joy of the work will disappear. It is unreasonable to expect anyone to have an equal and impartial interest in all subjects and the recognition of the teacher's hobby is a perfectly legitimate consideration.

It has often been proposed that teachers be permitted to advance from the minimum salary paid to the highest limit fixed by the Board of Education, without any let, hindrance, or interruption, except that they continue efficient enough to avoid dismissal. Fear of dismissal has been relied upon to keep them up to the mark. Such an arrangement it seems to me, however, absolutely ignores the real purpose for which the schools exist, and looks at the school system from the standpoint of a "job." Such an arrangement suggests making the necessary effort to get into the system and then letting the clock work. Such an arrangement does not keep in mind the absurdity of relying on fear of dismissal for keeping teachers up to the mark.

Everyone who has had experience in school administration realizes how extremely difficult it is to get rid of inefficient teachers in the public-school system, or inefficient public employees of any sort. The attempt to conduct our school system upon the basis of length of service, tempered by fear of dismissal, will produce the old fossil that we often find holding a good position in our cities. These fossils have sought the haven of a position in a city school system after being tossed about by the storms of village school politics. They settle down in some comfortable berth and make little effort toward increasing their efficiency. I think many of you know some of these sleepers; you have heard their snores, and have, perhaps, tried to waken them. You may have witnessed their surprise and indignation at the outrageous proposal that they wake up and go to work or get out. The suggestion that we can keep teachers of this sort up to the mark in our great cities by mere fear of dismissal is made by the persons who are not familiar with current history. When the old teacher who is a good fellow and is simply looking for a comfortable position, gets into one of our school systems, the chances of removal until death or physical disability are exceedingly small. We shall have to wait for death, and we shall probably feel, as Charles II. said about himself, that they are an unconscionably long time in dying.

A better thing to do than permitting advance, tempered by fear of dismissal, when teachers go to sleep, is to keep the younger men and women from going to sleep. Let us soon frame up our recommendations for increase in salaries and promotions in such a way as to encourage growth and work. Let us arrange in every way possible for the encouragement of work and growth on the part of the teacher.

Taking up again the question of schoolroom efficiency, it is vitally important for the supervisor to discriminate between mere skill in the use of schoolroom devices and real teaching power. It is easy for the supervisor of school

work to place too high a value on the skill in the use of these devices, and underestimate the teacher whose work is based on sound educational principles and who carries them out in a natural, systematic way. Our normal schools are, to some extent, to blame for this reliance on devices. On account of their short courses and limited opportunities, they have spent too much time in perfecting mere devices rather than in searching for fundamental principles. It is now proposed that our city normal schools finish their job; that they assist us in completing the preparation of the teachers by continuing it after entering the work of the schoolroom.

If this contention is right that the teachers must continue to be students, our great cities must make provisions for enabling teachers to continue their study after entering upon their life-work. If my contention is right it will in the future become as large a part of the work of the normal schools to carry forward the training of the teacher after her entrance into the service, as it was to take her from the high school and prepare her for entering the profession. The normal school, or some other educational agency, must assist her in advancing along the various lines of culture. The normal school, or some other agency, must assist her in gaining professional skill as well as breadth of scholarship and culture. We shall always find our teachers with interest in things of one sort or another that are sometimes not directly connected with their professional life. It may be music, it may be the mechanical arts, it may be literature, science, or mathematics. Whatever it is, it should be the work of the normal school and other auxiliary educational institutions to seize upon these interests and develop them, with a view to making the teacher a more efficient worker.

This attempt to state what may be legitimately expected of a professional teacher will seem exacting and exorbitant to some. It represents, in a general way, however, the ideals of earnest workers in the fields of education. It represents the views and ideals of teachers who believe that teaching is a profession and not a job. It describes the situation yet to be realized; one that is now being looked forward to by our best teachers. Our best teachers are thinking of the time when by one or two years' work beyond that given in the normal schools of the past they shall be entitled to a degree recognizing their attainment of professional standing.

While freely criticizing the schemes which have yet been presented for connecting advancement in salaries with greater efficiency among teachers, the great army of teachers are not anywhere objecting to higher standards, as well as higher salaries. The great army of teachers appreciate the fact that the schools are for the children, and that it is only by accident that any person happens to be called to serve the public in teaching. They realize that the primary function of the school is to protect the public against the dangers of an illiterate and ignorant citizenship; that by increasing the quality of the teaching done they increase the efficiency of these schools for the people, while at the same time they increase the remuneration, social and pecuniary, for the

teachers who are able to meet the requirements. My hope is that they will also recognize the danger to the schools as well as the danger to themselves of the competition of the incompetent teacher.

DISCUSSION

ALEXANDER HOGG, Fort Worth, Tex.—If Cicero in his times, when only for one law, and that for the benefit of one man, should introduce his subject with, *Hujus autem orationis facillius est exitem quam principium invenire*, to find out how to end rather than to begin—not what to say, but what to leave unsaid, so rich in arguments was his cause, may I not then be pardoned when I tell you I represent tonight a half-million of teachers and twenty millions of children, the youth of our common country—our rich heritage?

I represent a body in numbers more than the three learned professions, law, medicine, and theology, and a body of men and women who have the making of the first impressions upon the plastic minds of our childhood, who really shape their future for good, not for bad—for the teacher's work is always in the direction of good.

Passing over the historical periods, the evolution of teaching, I come at once to the main question, The better remuneration of our teachers of today.

The reason why teaching has not, up to this time, received its commerical value, is due to the fact that teaching has not for its end the same result that the professions and other vocations have,

The joy is in the doing,
Not in the deed that is done.

Or perhaps this is better expressed in *Lucile:*

That the deed in the doing it, reaches its aim,
That the fact has a value apart from its fame.

Or, I mean to say, that teaching is different from the work of the doctor, the lawyer, the clergyman, for in all of these, to the pleasure of doing is added the result, in the two former, large fees.

The clergyman's work being so closely allied to that of the teacher, his compensation, while greatly increased lately, is measured by the same standard as that of the teacher, viz., "The joy in the doing." When we come to the commercial world, the result is the most important part of all; it can be measured either with the yard-stick or the balances.

It is not so with the teaching; the result cannot be measured, weighed, or even estimated—the whole is subjective, so far as the teacher is interested.

It is easy to see why the civil engineer can command more, receive more, than the college president; his work is the construction of a great bridge, like that at Niagara, or that across North River—it has a commercial value, which can be measured by the dollar.

It is easy to see why the locomotive engineer receives more for his work than the high-school principal; why the stenographer—the typewriter—gets more than the primary teacher—often more than the principal. Minute, accurate tabulations have been printed and are accessible, in which the compensations of all classes of wage workers have been made, with the salaries of our teachers of all grades, and the result is that these tables show the teacher to a great disadvantage.

So far we have shown why not. Let us come to the *why* the teacher should receive more for his or her services. And of the arguments, first of all, the work of the teacher is upon the human mind and the human soul, and, in our country, upon twenty million of children today that must be the citizens, voters, and rulers tomorrow.

Second, the proposition of expenses, of time and money, is equal and in many cases more than any of the other vocations, or even professions. Happily, another has made this out in detail, and I give only the aggregate. It will cost an average of $5,600 to prepare one for teaching.

Show the patrons—the school board—that in addition to teaching you have to govern, to keep order, to interest fifty or sixty little immortals for six hours; that every day you decide cases of discipline that General Grant, when he was president, would call a cabinet meeting on. Put into our schools books of interest to the young; let the *Last of the Mohicans, Lallah Rookh*, and even *Hiawatha* give place to books of interest about the progress of our country, what commerce, agriculture, and the mechanic arts are doing, what science and skill have done for the world. Teach in every recitation morals and manners, better citizenship, broader patriotism, greater love for home and school.

Here is a good place to bring in the relative number of men and women teachers: In the United States in 1882, men 40 per cent.; in 1890, 35 per cent.; in 1900, 25 per cent.; and now it is stated that nearly 80 per cent. of our teachers are females. Says one: "There has been no incentive for men to prepare for this calling, and they have left the field," and now it is difficult to keep their places filled with competent women teachers. Possibly the situation would be better if the schools would adopt the plan Fort Worth did in 1882. Upon the inauguration of her public schools, for the remuneration of her teachers, the general rule was laid down that: in the same grade of work, the same salary should be given to the women as to the men. Fort Worth went still farther, and gave the colored teachers doing the same work in the same grades the same pay as the white teachers.

The salaries there depend upon two elements—the grade of certificate and the number of years in the schools. Five dollars is added to each month's salary for each following year. This is what may be called a sliding scale; it works well.

In the employment of teachers, Professor Münsterberg says: "There was never before a nation that gave the education of the young into the hands of the lowest bidder." He might go farther. I'll do so for him and say, that in all the trades, in all the commercial transactions, the employment of teachers is the only one in which the employer selects the goods and sets the price. "Mr. ——, we have this day selected you as a teacher in our schools, and you will receive $—— as your salary." Should it not read thus? "We have this day selected you as a teacher in our schools; what compensation do you expect us to give?"

Again, there is much in the times—much in the spirit of the times. We are in an age of unprecedented prosperity all along the line. The salaries of our teachers have been improving—here a little and there a little. Now is the time to make an effort to bring about what would seem to be a fairer compensation for our teachers; the facts and reason seem to point that way. With the increase in all values, the expenses of the teachers, like the expenses of other people, have greatly increased.

The university and college men have been insisting for years that our teachers should be better paid; this comes from the top downward. Let us begin at the bottom and work up; let us begin with the mothers, and they with the fathers, the tax payers; let us show by our qualifications, our equipment, that we are entitled to more consideration, better remuneration. Let every teacher take in hand this matter, and the day will not be far distant when the calling—the profession then—of the teacher will rank so high that the best men and the best women of our land will again come into the fold.

Their calling, not their profession, as yet has nothing of insignia. Article 1, section 9 of the Constitution of the United States, forbids in this calling, as in all professions, all titles of honor, viz.: "No title of nobility shall be granted by the United States."

But there is a joy "in the deed that is done." With great pride and greater pleasure, on one occasion I heard Mrs. Granville Boyd, a Christian teacher of Virginia, say, speaking of that great scholar, president of three different universities, and an eminent astronomer, Dr. L. C. Garland: "Langdon may measure the distance between the stars, may weigh the earth, but I taught him his letters."

Still another case, even broader and more comprehensive: Said that sweet-spirited and splendid pulpit and platform orator, the general agent of the Peabody Fund, Dr. J. L. M. Curry:

And when the Confederate soldier furled his flag at Appomattox there was not a southern state that had a system of public schools; but now in organic law and in statutes, universal education is recognized as a paramount duty. Newspaper press gives intelligent and effective support; party platforms incorporate public schools in the political creeds; state revenues are appropriated; local communities levy taxes, and scarcely a murmur of dissent is heard in opposition to the doctrine that "free government must stand or fall with free schools." Let me affirm with emphasis, as an educator, as a patriot, as an American, that on universal education, on free schools, depends the prosperity of the country and the safety and perpetuity of the Republic.

The full fruition of the teacher's labors, "joy in the doing," brings joy in the deed done.

TEACHERS' PENSIONS

CHARLES H. KEYES, SUPERVISOR OF SCHOOLS, SOUTH DISTRICT, HARTFORD, CONN.

All that we call progress in civilization is but obedience to the deepest and divinest instinct of the race. Its command to society is to repeat and improve itself. Since man first lifted his face from sod to sky, this instinct has impelled his footsteps. Modern society has organized no agency to insure fidelity to this law of growth toward manliness and godliness that is at all comparable in its opportunity with the school. The home, the church, the whole social body has turned over to the school the largest and most important share of the work of training to meet the command, obedience to which spells social uplift, and disobedience to which means degeneracy. The character of our schools then must determine the fate of society. They should be what the true training of childhood and youth demand. They should be organized and administered for this, for the service, and not primarily for the convenience of the teacher or the comfort of the taxpayer. Under this view of the function of the school, I submit that economic prudence and social wisdom demand that provision shall be made for adequate and honorable pensions for teachers. From this point of view it will be no argument to urge pensions because teachers want them, or because teachers need them, or because teachers deserve them. I desire to justify my thesis on the ground that such a policy is demanded by the schools themselves. Parents, and taxpayers, and patrons of our schools, and not school teachers, have the prime interest in enacting pensions for worthy teachers. It may be, therefore, true that I have brought my argument to the wrong forum, and that this audience, composed in a majority possibly of teachers, is not the jury whose verdict we desire to influence. But, teachers of America's youth, you will pardon me and hear me, if I forgot you, and address myself to the distinguished citizens of this marvelous city and state, and to the other lovers of education, who now honor this association with their presence.

There are five cogent reasons why pensions should be provided for the teachers of the schools to which you are intrusting the education of your children.

1. That is the best teaching which emanates from a soul that devotes itself

with a singleness of purpose to the guidance, the training, and the inspiration of the youth. No teacher can do the best work for our children while at the same time compelled to be busy with plans for securing a livelihood when the days of service in the schoolroom are over. No teacher can fitly train children by day and worry by night over the question of raiment and food and shelter for the days that come too soon. Children deserve a happy childhood of hard work and healthful play. Give them a cheerful, joy-inspiring teacher, who can give all the best that is in her to her school.

There can be no teaching worth while for children from a worried woman or a care-burdened man. Working, planning, and worrying to make provisions for old age take too much of the time and thought that belongs to the children. I submit, therefore, that it is to our interest to secure the enactment of laws that will provide for the teacher in her old age.

2. Teachers of the largest ability are every year being drawn away from the school service, in which they have proved their high capacity, to enter on more remunerative fields of endeavor. To continue serving our children is to accept an old age of dependence or privation. To enter upon the new field of work is to receive rewards large enough to enable them to make provisions for their declining years. The teacher does not receive, nor is she ever likely to receive, compensation ample enough to permit such provisions. Unless we would see the education of our children turned over to second-rate women and to third-rate men, we must provide the rewards that would permit our ablest teachers to consecrate their lives to the service of our schools. I submit that for this reason alone it is the duty and interest of every parent and every patriot to aid in securing honorable and adequate pensions for teachers. Note the attractiveness of the pension—the able lawyer earning $10,000 to $15,000 annually, attracted to the $3,000 or $4,000 judgeship, which has the retirement at age limit.

3. The efficiency of an army always depends upon the character of the recruiting department. The great army of teachers should always attract many of the brightest and ablest young men and women who, year by year, graduate from our leading educational institutions. Nay, the service should be so treated as to attract young men and women of character and brains to prepare for it as an honored and honorable profession. The current rewards of the teachers are so grossly inadequate that the very material we most need in our schools is being diverted to other callings.

Even if salaries should be increased to the highest point for which we have any reason to hope, they would still be too small to permit the laying by of a competence for old age. Young men and women of high attainments see this, and carefully avoid the teaching profession. A guaranty that faithful service of our schools for a term of years would insure in age the modest independence, and leisure for study that many an inspiring scholar most desires, would win rich recruits for our educational army. Can there be any

doubt of the wisdom and the expediency of instituting honorable pensions as a means to this needed re-enforcement of our school?

4. There are in many of our schools men and women with the largest capacity for growth who are earning unusually good salaries, from which they are laying by a fund to take care of themselves in old age. To do this they are compelled to deny themselves the opportunity to travel, the time to study, the ownership of books, and the change of scene for bodily rest, which are essential to the life and growth of an inspiring teacher. How a retirement pension would change all this and enable such men and women to multiply their own powers, stimulate and refine their associates to the blessing of the boys and girls! Every worthy parent finds his richest rewards not so much in the material situations he has conquered, the honors he has won, the wealth he has amassed, as in the contemplation of the rich opportunity those furnish for his boys and girls who share with him and after him their enjoyment. Society, like the individual, will find its richest life in making wise provision for its successors. Are not your boys and girls worth your making for them the small sacrifice needed to give them more teachers who can afford from time to time to renew their youth, their scholarship, their inspiration. Is there any escape from the conclusion that it is folly to unduly delay the coming of the day when the teachers in our schools shall enjoy these opportunities because we have provided for their old age adequate and honorable pensions?

5. In thousands of the older cities and towns of our Union, there are teachers who have practically worn themselves out in the service of our schools. From periods of from twenty-five to forty-five years they have spared no power of heart and brain in loving and consecrated devotion of their lives to the lives of boys and girls. They are body-tired, heart-sore, and brain-weary, with a frequency that is agonizing to witness. They have been able to save little or nothing. They cannot see that it is their duty to retire to privation or to charity. No official has the criminal courage and hardness of heart to turn them out to alms or starvation. As a result they are spoiling the tempers and abusing the intellects of whole schoolhouses full of children in return for their confinement by the community at hard labor in the schoolroom. But this cruel and inhuman punishment of faithful old teachers who ought long ago to have honorably retired on pay, goes on in a thousand American towns. The splendid teaching that they did for twenty-five and thirty-five years is no excuse for continuing to sacrifice to each of their broken years forty or fifty of your boys and girls. Forget these devoted broken men and women if you will. If in the hardness of your heart you shall conclude to work them to death, I say nothing of the shame. But I do ask, can common business intelligence justify you in paying for something that you are not getting? Can decent regard for your own boys and girls justify their continued sacrifice? There is a patriotism whose ebullition takes the form of a rush of blood to the head and words to the lips that might with hand on heart stand in the presence of teachers and schools thus sacrificed and talk of love of country; but you, my

friends, know that no country is worth loving that, with eyes open to such an abuse, long permits it to continue. As honest men and women, are we not driven to the conclusion that honorable and adequate pensions for teachers must be provided in defense of the home and its children?

There is no escape from the conclusion that, no matter what the teachers may want or need or deserve, the interests of the child, the parent, and society, demand this pension establishment. We must now consider how it is to be secured.

Three general plans have been advocated and put in operation:

1. Bodies of teachers bent on providing for disabled veterans of the schoolroom have formed teachers' retirement associations, teachers' guilds, and teachers' annuity associations. They have provided small annuities for aged and worthy teachers by assessments of their own membership, increased by donations of philanthropic individuals, and in some instances by small legislative appropriations. The Retirement Fund Department of the New Jersey State Teachers' Association, the Connecticut Teachers' Annuity Guild, and the Boston Teachers' Retirement Fund Association, are good examples of these movements of which there have been many thruout the Union. They have not furnished, nor can they ever hope to furnish, complete and satisfactory disposal of the problem. Looked at as final agencies, they are subject to all the vicissitudes attaching to voluntary fraternal insurance societies with amateur managements. Some teachers support them as well-meaning philanthropies, but even the school teacher seeking old-age protection that is really insurance knows enough to send her money to Hartford for the purchase of the real article. But these associations have done their greatest work in securing the adoption of other plans for more adequately solving the problem. In fact, all the rational teachers' pension legislation on the statute books of American commonwealths has been secured largely, if not entirely, thru the influence of these teachers' organization.

2. Progressive cities in various quarters of our country have established, under legislative sanction, retirement funds for their own teachers. New York, Philadelphia, Detroit, and San Francisco, furnish the best example for this second scheme. Percentages of teachers' salaries, deductions on account of teachers' absences, and donations, form the major portion of the fund in all these plans except in the city of New York, where the foregoing sources are largely increased by the addition of 5 per cent. of all the excise money and fees for liquor licenses received by the city. Under these different city plans maximum annuities vary from $150 a year up to $2,000 a year, this latter sum being provided by the city of New York, where the lowest annuity is equal to half the salary paid at the time of retirement.

3. A few states have enacted general pension laws for the benefit of all these teachers. Of these Rhode Island and New Jersey have formulated the most generous and most equitable statutes. New Jersey provides the bulk of her fund by deduction of from 2 to 3 per cent. of the salaries of all teachers.

The annual pension amounts to three-fifths of the average annual salary for the last 5 years of teaching, but it cannot be less than $250 or more than $650.

The Rhode Island law, enacted in April of the present year, is so simple and concise that I beg leave to state it. It runs as follows:

SECTION 1. Any person of either sex who on the passage of this act or thereafter shall have reached the age of sixty years and who for thirty-five years shall have been engaged in teaching as his principal occupation, and have been regularly employed as a teacher in the public schools or in such other schools within this state as are supported wholly or in part by state appropriations, and are entirely managed or controlled by the state, twenty-five years of which employment, including the fifteen years immediately preceding retirement, shall have been in this state, may at the expiration of the school year, unless his private contract with his employer shall otherwise provide, be retired by his employer or voluntarily retire from active service, and on his formal application shall receive from the state for the remainder of his life an annual pension equal to one-half of his average contractual salary during the last five years before retiring, but in no case shall such annual pension be more than $500; Provided, however, that no such employment as teacher within this state after this act shall be included within its provisions, unless the teacher, shall hold a certificate of qualification issued by or under the authority of the State Board of Education.

SEC. 2. The State Board of Education shall make all needful regulations for issuing certificates of qualification and carrying into effect the other provisions of this act not inconsistent with the act itself and shall examine into and determine the eligibility of each and every applicant to receive a pension under the provision of this act.

SEC. 3. For the purpose of carrying this act into effect the sum of ten thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of any money in the treasury not otherwise appropriated, and the state auditor is hereby directed to draw this sum as shall be certified to him by the State Board of Education, according to the provisions of this act.

SEC. 4. This act shall take effect on the first day of January, 1908.

This statute is the most generous and, in its principle, the soundest yet enacted. It squarely accepts the whole responsibility for the state whose schools are to be benefited, and does not require the teachers to furnish any part of the fund. The defect of this law consists in the smallness of the sum appropriated and the absence of any provision for making the appropriation continuous. It is hoped and believed, however, that the next session of the Rhode Island legislature will remedy these defects, and place the smallest state in the Union in the position of leader and exemplar for all the others.

And now, ladies and gentlemen, is not the time and place auspicious for this great National Educational Association to inaugurate a campaign for the dissemination of such information and the creation of such popular sentiment as will insure the enactment in every remaining state of the Union of laws providing for adequate and honorable pensions for all worthy teachers? California has established some conditions that fit her to lead the way in such a movement. You have demonstrated the wisdom of provision by the state as a whole of the great body of the funds for the support of elementary schools. Under your scheme of state taxation you have built up a system of common district schools which, whether in mountain, hamlet, desert settlement, farming country, or prosperous city, are the envy of the Union. You have proven the

wisdom of state responsibility, especially when coupled with a wise measure of state control of the qualifications of teachers. In the campaign for the protection and improvement of the schools thru the establishment of teachers' pensions, we have a right to look for a leading of the way, in sections where this idea of state responsibility has been accepted and approved. Will California hear the call?

Back in the old Constitution state we honor the memory of a gallant soldier of whom we are fond of saying, "He dared to lead where they dared to follow." All over this Union are principals, superintendents, and school officers who with other influential citizens say of the National Educational Association, "Where this great body deems it wise to lead you may count on us to follow." Let us take advantage of the time, the place, and the conditions to make this great association leader in a campaign of popular education on this subject of teachers' pensions. Success in such a campaign and under such leadership will bring relief and inspiration to many thousands of teachers; but it will do more. It will bring richness into the lives of hundreds of thousands of school children everywhere. It will give them assurance of the better training that comes from the peaceful heart and undivided mind of the teacher who may live and strive for the single purpose of making your boys and girls worthy inheritors of the marvelous estate of the American fathers. Carry on your high duties and ours in a way more effective and glorious than our fondest dreams have dared to promise.

OTHER FORMS OF COMPENSATION FOR TEACHERS

GEORGE W. NASH, PRESIDENT, STATE NORMAL AND INDUSTRIAL SCHOOL, ABERDEEN, S. D.

The lucid and entertaining papers just read from this platform have commanded the thoughtful attention of this great educational body and have emphasized the importance of teachers' salaries and teachers' pensions. You are now asked to consider for a brief period some of the compensations other than financial which are the rewards of every faithful teacher.

We are doubtless agreed that the mere wages one receives are not to be regarded as the entire or as the highest portion of the compensation for an honorable engagement. The best recompense for effort is the joy, the satisfaction one gets from performing the labor to which his inclination prompts him. The artist's pay is in the work itself. He labors from a love of it. So the highest compensation of the teacher is the joy of working, the pleasure of contributing to an ideal humanity.

Whatever may be our views of personal immortality, the hope of it has been the very best compensation, inspiring the exalted labor of many of the world's greatest teachers. "To live in hearts we've left behind is not to die." Is not Plato immortal? Does not Pestalozzi live? Is not Horace Mann reincarnated daily in the lives of American boys and girls? Adopting the

thought of Preston W. Search, once active and honored in the educational life of this fair city, I unhesitatingly declare that, "There is no death to the faithful teacher who has passed something of personal spirit to children in the schools; such a life never ends; in geometric ratio it forever increases." And many a teacher, living, has seen his own likeness in a pupil who owes the world's plaudits to that teacher's faithful tutelage, and, dying, has left an ever-expanding heritage to the generations of posterity. In this prophecy of immortality there is recompense above the purse's gauge.

But immortality can come only thru effort. If the product of the school teacher is to be worthy, great care must be exercised in its making. Seneca truckled and Rome was scourged by the heartless Nero. Fenalon prevailed, and the Duke of Burgundy was prepared for wise leadership. Today, as ever, *life* is the greatest problem that confronts the world. Disease affects the public mind and human existence is held in light esteem. To teach the youth how to meet responsibility is the heaviest burden that rests upon the teacher.

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There is a property of human character called "soul." When the handful of heroes at Thermopylae died to save their country from the Persian conqueror, men said those heroes had great "souls." When any man bursts the chains of birth, outfaces poverty, outgenerals misfortune, falls back but never yields, we say that man has a mighty "soul." When any woman made childless by the hand of death, made beggar by a husband's vice, made weary by the galling of disease, still toils to fill her place on earth—still clings to life, yet smiles at the terrors of death—we honor that woman's "soul."

This is the name we give to that quality which tides man over the wrecked places of his life. It is the adamant. It is uncorrupted by triumphs; it laughs reverses to scorn. It can face dishonor, remorse, disgrace. It inspires the savage to bear the fire of torture without a cry for mercy. It supports the ruined merchant. It smooths the ruffled brow of the defeated statesman. It dulls the fangs of unpopularity, of slander, of libel. It ever murmers thru the mind in the voice of the divine Holland

> The Devil gets never a man on his back,
> Whom he scares not first or last.

It is this faculty, this embodiment of faith, patience, endurance, this quality that makes a barbarian a hero, that gives us our martyrs and our reformers; it is this which has not kept pace with the intellect in its growth. It is the cultivation of this that can remove the awful plague which threatens to undermine our social organism. How sacred, then, I repeat, are the obligations of the teacher! How dear the price of immortality!

"To give subtlety to the simple; to the young man, knowledge and discretion," is the divine commission, and he who sincerely sets his heart to the developing and uplifting task imposed cannot fail to reap a rich return in satisfaction as he beholds the magical fruiting of his honest planting. The complacency due to the development of the intelligent and moral citizen, the

exhilaration wrought by the expressed gratitude of pupils, the joy in the success of those whose lives have, in a sense, been molded by his hands, are delectable commodities in the school master's store not purchasable in the coin of the realm. Bacon put it well when he said, "The pleasures of the intellect are greater than the pleasures of the senses." The teacher's best fortune is of that invisible sort that makes the possessor happy, content, and unenvied. Than this, life has no higher reward for any man.

Satisfaction and contentment are the chief ends of human activity. It is for these that every rational human exertion is expended; for these men labor incessantly; for these they make war and conclude peace; for these they explore the uttermost parts of the earth and follow the intangible spirit of the mighty ocean to its mysterious haunts; for these men sacrifice comfort, health, friends, and family to engage in a ceaseless struggle for wealth and power; only to learn at last that the satisfaction and contentment they hoped to purchase are far beyond the power of buying. Everywhere satisfaction, like the pronunciation of Demosthenes, is the first, the second, and the third thing, and happy indeed is he who so orders his life that satisfaction comes at his bidding to sit at his table and to share his bedchamber.

Sordid gold is the lowest and meanest measure of success. If gold be the standard, then the teacher's profession is meaner than the ditch digger's. But gold never was the standard of the measure of compensation in any exalted vocation for longer than a brief period. Who would ask how much money Socrates earned or what were the wages of Plutarch, Caesar, Cromwell, Washington, Grant, or Lincoln? No one has ever been so worldly as to think of these great characters in connection with money-making. No one associates the success of any teacher with the sum of money he has earned. The most exalted, the most highly respected name in history is that of the Great Teacher who had "not where to lay his head." Yet, who would exchange the undying fame of the Nazarene for the gold of a Rockefeller?

Dionysius the Younger, deposed from a throne of grandeur, wealth, and absolute power, became a poor but happy schoolmaster. The scepter gave him only disappointment; the birch brought infinite satisfaction. The tyrant of Syracuse learned in his declining years that the teacher enjoys compensations not weighed in the steelyards nor balanced in the ledger of the merchant.

There is an inherent elegance about the teacher's profession that appeals to the man or woman of fastidious tastes. Long vacations afford opportunities for rest, recreation, travel, observation, and study, not enjoyed by other professions, and these must compensate the teacher in some degree for the lessened material reward.

The profession has its gifts to offer to the ambitious. To him who is spurred to his work only by a desire for preference, for leadership, for high places in the sanctuary, schoolmastering presents chances equal to those found in other professions and vocations. The successes of ambition are

merely relative at best, and to excel in method, to secure the notoriety of fame, to win the preferments the profession offers, and to sit in its chief seats are as sweet to the pedagogue as to the politician. These may not be the worthiest compensations but they are tangible ones which have brought joy to many a teacher and induced many others to do better work in the schoolroom. Men may live for money but they will die for fame.

Finally, "he who teaches is best taught," and the opportunity afforded the teacher to perfect himself in scholarship is no small element in the extra-financial compensations of his position. The effort to teach develops the power of self-expression, the power to convince, and the ability to think. The teacher who does not daily find his life richer in intellectual attainments while with pride and joy he watches the unfolding of his pupils has wretchedly missed his calling.

In this brief paper I have not attempted to enumerate all of the other compensations of the teacher, but I trust that I have at least indicated that the salary, important as is that feature to all of us, is not the full measure of the schoolmaster's earnings and rewards.

SCHOOLS FOR DEFECTIVES IN CONNECTION WITH THE PUBLIC SCHOOLS

C. G. PEARSE, SUPERINTENDENT OF SCHOOLS, MILWAUKEE, WIS.

The generations that have succeeded since the days of our Aryan ancestors have taught us much as to our duty toward the less fortunate members of our society. We have learned, in particular, much as to our duty toward those children—members of our society—who are born without, or who after birth lose, certain of the powers of body or mind by which normal children learn the things which other people know in the same manner that other people learn them.

There is much reason to suppose that in the earlier stages of our history those unfortunates who were born, or in infancy became, blind or deaf or greatly deformed, were got rid of in the easiest way—were exposed upon the mountain or in the forest, or in some other way eliminated from membership in the family and the community to which they promised to be a burden.

Later these unfortunate children were allowed to live and to inhabit the home. They were given scant care and received no suitable teaching. In the homes of the more barbarous peoples they were not infrequently treated with scorn, suffered indignities and cruelties, and led lives of wretchedness. Without thoughtful or kindly teaching, they developed, if at all, only in those lines which they were able to pursue without aid. If the tormented current of their lives, hemmed in and beaten back from the usual channels of development, did in occasional instances show depth or power, such instances were exceptions, and the result of accident.

The conditions of these children improved with our growing civilization,

and our sense of responsibility toward them grew. From running neglected about the homes, they came to be cared for in physical comfort. Then some effort at teaching them began. Men and women with better vision and a finer spirit of helpfulness came to believe and to teach that for these, too, education might do much; that proper education might help them to overcome in a considerable degree nature's handicap and to develop in large measure those powers and abilities possessed by their normal fellow-men.

The first stage of this special education has been in progress for many years. It has been carried on almost exclusively in state and private institutions. In some of these the purpose of the institution was chiefly educational; in other cases the institution, while giving some attention to education, partook more of the nature of an asylum, where the inmates were more likely to stay permanently.

These institutions—schools at once, and asylums—have done great good. In them have been developed a knowledge of these children, an understanding of their needs and limitations, their desires, their aspirations and their possibilities. In these institutions, too, through intelligent application of educational principles to the various conditions of facts supplied by these children, has grown up the body of educational theory and practice for these various lines of special work. This body of special educational theory and practice is today not only making it possible for these children to receive the benefits of education in a degree far beyond what was possible in the past, but has, I believe, already made it possible to take generally the next forward step in the education of several classes of them, namely, to educate them, at least thru the years of childhood and the earlier years of youth, in day schools connected with the public schools, where they may remain a part of the home circle, members of the community, meeting and growing familiar with normal people and their ways, instead of being segregated in special institutional schools, where they form a class apart, growing each year less familiar with and less able to meet, and be comfortable in the society of, normal people.

Most of the states provide generously in institutions for the children of the state who are blind, deaf, feeble-minded. It is not seen how at present these institutions can be dispensed with. We may never be able to do without them. Probably three out of four classes of mental defectives should, and must always, be cared for in institutions partaking more or less of the nature of asylums. Some blind or deaf children are defective in other ways. Schools for these special classes require special appliances and equipment and specially trained teachers. Some times the number of children of this class is too small to make it practicable to keep up the special school in the home community. For all these, the institution seems at present the alternative.

Parents cling to their children. Normal parents hesitate to send them out from the home circle. Children in possession of all their senses, able to care for and protect themselves in the usual way, are best at home, and parents rightly wish to keep them there. But to children who are unfortunate, who

are in greater or less degree helpless, unable to protect themselves from neglect or cruelty, parents cling with especial tenderness, and such children they are especially unwilling to see taken from the home beyond the reach of mother's ministrations and father's watchful care. For this reason many children are not sent to the state institutions, and grow up without proper education, to become abnormal, unhappy members of society, too often a burden of expense to the home or to the state. The day school, where the child might attend and at the same time remain a member of the home would frequently prevent this.

But where these children, defective in some of the senses, or in some powers of the mind, go from home and become members of an institution, they lose the influence of the family, that fundamental unit of our society. They are separated from the love of father and mother; they do not know the companionship of brothers and sisters. All the sweet experiences of the home are unknown to them. They are deprived of its responsibilities and cares and of its sorrows, which do so much to humanize the soul and develop wholesome character. They become part of a special community with special environment, to which is given special care and protection, and whose members are exempted to a considerable degree from the duties and responsibilities that fall to the lot of the average member of society. In some cases special methods of communication between the members of these institutions exist. All these things tend to shape these children into a class apart.

Year by year while becoming proficient in certain accomplishments and developing in certain directions, they are becoming more and more habituated to life in an institution, more dependent upon it and upon the special conditions, special privileges, special care, and special relief from responsibilities which institutional life begets. This is a condition into which they would not fall if they might remain in their homes, receiving in day schools such special instruction as they require.

Unless we are to develop special varieties of the human species, for whom we must provide special communities of refuge, children of these special classes must be so taught as to reduce or minimize the effect of their abnormality, and draw them toward the normal type of social citizenship. To do this, they must remain in and a part of the community instead of being segregated and kept from contact with it through all their most formative years. After completing their formal education and taking up the work of life, these children will not seek the society of their normal fellows unless they can be comfortable with them—unless they understand them and their ways and their means of communication. If they are to mingle with the society which surrounds them and are to remain a part of it, their abnormal or atypical characteristics growing less and less marked and noticeable, they must grow up in the community, each of them as one of its units; they must not grow up separated from their normal fellow-men, in a special community under special conditions, which every month render them less in touch with their normal fellows, less able to

meet and mingle with, to understand and be understood by them, and more and more dependent for happiness and well being upon the special conditions to which they have grown accustomed. Every year of institutional life is likely to leave them with less knowledge of the natural world and less ability and less desire to mingle with and be happy in it.

Among the earliest schools for defectives in connection with the public schools were the day schools for the deaf. These children can move about with little difficulty and comparative safety; it is easy to gather in almost any good-sized town enough such pupils to form a class. If this class is in connection with a public school, the pupils may at recess and at other times, mix with the other children at their play and on the street, receiving this education, as well as that of the home and the schoolroom.

These day schools use the oral method of instruction with their pupils, the purpose being to teach them the things that other children learn, and at the same time teach them to speak and to understand what is said to them by their teachers and schoolmates as well as by hearing persons, thru reading the lips of those who speak and without the aid of signs. This ability most of them acquire in a good degree by the time they have finished the work laid down for the grades below the high school. They are able to finish this work, too, at an age not very different from the age at which hearing children finish. By the time these pupils have completed the common school work they usually have enough command of language, and of the knowledge conventional among us so that they can either enter upon some business or employment from which deafness does not bar them; or they can go on into the high school or to some other higher school, entering classes and maintaining their places with hearing pupils.

The sign language usually taught in the institutions, either alone or in combination with the oral method is not taught in the day schools. The whole system is directed toward giving the child, while acquiring the elements of knowledge, the power of speech and the power to understand the speech of the hearing people about him.

Recently there has been a strong plea by many teachers in institutional schools for the deaf, for the use of a combined method—a method of instruction that shall give both the sign language and the power of lip reading and speech. They have been joined in this request by many of the educated deaf who maintain that the sign language is easier and quicker for them, and that they prefer it.

Perhaps if these educated deaf had not been taught the sign language and used it for many years in institutions it would not have been easier or quicker. But even if it were, I do not believe it should be used in our day schools; probably not in our institutions. The primary purpose in educating the deaf, as in the case of other atypical classes, ought to be to enable them to live in the community with its normal members, and themselves as nearly normal as may be.

The tendency in the past has been for deaf persons, educated in institutions and taught in the sign language, to return to the institution or to its vicinity, there to form colonies of deaf, living in the neighborhood and intermarrying. Anything which tends to this result is a danger and ought to be counteracted. Dr. Alexander Graham Bell, to whom the deaf and their education owe so much, discussed this danger in a paper on "The Formation of a Deaf Variety of the Human Race," read more than twenty years ago before the American Academy of Sciences. In this paper he showed by voluminous statistics that deafness has a tendency to follow in families; that the number of children born deaf is increasing in proportion faster than the total number of children born; that the number of deaf children born to deaf parents is increasing faster than the number of deaf children born to the people at large. Everything, then, which can be done to merge the deaf into the body of society at large; to discourage and break up so far as is possible the habit acquired in institutions, of using and thinking in the sign language instead of in English; the habit of, and desire for association with other deaf persons rather than with hearing people; and the practice of intermarriage among the deaf, is a positive gain to the members of this atypical class, and to society at large. Dr. Bell says: "The grand central principle that should guide us then, in our search for preventive measures, should be the retention of the normal environment during the period of education. The natural tendency toward adaptation would then co-operate with instruction to produce accommodation to the permanent conditions of life." He concludes by saying, assuming the necessary skilled instruction for the child, "The school which would most perfectly fulfill the conditions required, would contain only one deaf child."

A great hindrance in the teaching of deaf children has been the fact that they began to learn language and speech when they came to school, several years after normal children acquire these accomplishments. For this reason they are likely to master these arts less perfectly and to be later in getting an elementary education than our normal children. For a few years a departure in Pennsylvania, the School for Training Deaf Children in Speech before they are of School Age, has attracted marked attention. Into this school deaf children are taken for instruction at the age when normal children are learning language and speech at home. Experience here has shown that deaf children may in effect be almost as well grounded in language and speech by the time they reach the usual school age, as are their more fortunate mates who have all their senses. The children may be taken to the school to live, or better, they may attend as day pupils, remaining members of the home. The lessons taught by this school are not unlikely to prove the greatest step forward in the teaching of deaf children that has been taken since oral teaching was established.

For children of defective vision or entirely blind, the day school in connection with the public schools provides the same opportunity to give these children the skilled instruction, and the special facilities which are necessary

for them and at the same time allow them to remain in the home, sharers in its influences and benefits. In the day schools, as in the case of deaf children, they may mingle to a certain extent on the streets and at their play, with normal children, with whom they thus remain in touch and sympathy. They may, by degrees, enter the classes with children who see, and while always at some disadvantage, may, in most cases, maintain with credit their positions in the class. Blind children seem to appeal more readily to the kindliness and understanding of their normal fellows, and to find it less difficult to meet and mingle with them; so the problem of the blind is in some respects more simple than of the deaf.

For most classes of children of deficient mentality, the public school offers no suitable place. A considerable majority of them belong to those classes for whom perpetual care, or at least lifelong guidance, is essential.

There is, however, a section of them, made up of two classes, for whom the public school can be of real benefit. One of these classes is made up of children whose minds are normal but who for various reasons—infantile illness or injury, neglect, unwholesome surroundings, bad food—are backward, undeveloped. These children, put in separate classes, in charge of skilled and sympathetic teachers, and taught by methods tending to awaken and stimulate their dormant powers, will in most cases, assume a normal condition and a normal capacity, and be fitted for transfer to regular classes.

The second class is composed of children not feeble-minded, not lacking in what might be called good sense and the power of self-direction, but with some of the intellectual facets clouded or lacking so that they cannot quite see, or understand, or do things, as normal children do. Kept in the regular classes these boys and girls fall behind, become discouraged, often troublesome and perverse. Segregated from the mass, into classes not too large, with teachers sympathetic and skilful, the whole attitude of the child will frequently change. In a schoolroom, where he may have facilities and freedom the regular classroom cannot give, the boy becomes an interested and successful worker; and, more important, an attitude of good will toward the school and toward the classmates and teacher is likely to be re-established. This attitude toward the school is likely to go with the boy and become his attitude toward the society of which he later becomes a part. Lacking this opportunity and this teaching fitted to their needs, such children have too often gone out from the school too early, unfitted for the work of life, unhappy, discouraged, antagonistic, desperate. We should save these children from themselves; we should save the state from the harm they may do, if their hearts are wrong.

I have touched only a few classes of atypical children for whom the public schools may profitably care. These have been taken by way of illustration, to point the moral and adorn the tale. But I have been asked by those who are doing this special work and who have a vision of its possibilities, to bring to you, the members of the National Educational Association, a message. And if I understand the message it is this:

The public schools should stand anxious to increase the scope of their usefulness, and become so far as they may, to all the children of the state, the door of opportunity, as they now are to all the normal children of the state. That we should so order our system of public education that we may care not only for the normal, but for the great majority of those who depart from the normal type, either through lack of some bodily power or sense, such as sight or hearing, or through some intellectual lack, where that lack is not such as to render them incapable of leading self-directed lives. That our search in this direction should not ease until we have brought within the magic circle of our people's schools all the classes of defective or atypical children, except those unfitted by their misfortune to lead self-controlled, self-directed and self-supporting lives; and have made it possible, in these schools, for them to receive the special care and special educational facilities which they require, while at the same time remaining in their homes, in the care of father and mother in the companionship of brothers and sisters, approaching more and more nearly, as their educational years pass by, to the normal type of the society in which they must take their places, tending less and less to become members of a class apart, unseeking and unsought by their normal fellow men.

THE SCHOOL AND THE LIBRARY

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To be a true teacher, he who would instruct must have the power of seeing education in all its varied, finished entirety. The part must never appear to him greater than the whole. He must ever have before him a definite ideal of the manhood and womanhood into which he would have boyhood and girlhood develop, and must levy upon every means of help within the range of his personal experience, supplemented by the best from universal pedagogics. His endeavor must be to train girls and boys to bear "without abuse" the names of gentlemen and gentlewomen, to wear the names *men* and *women* worthily as befits the sons and daughters of God. He must recognize the value of that education which is the outgrowth of communion with nature—appreciation of the charms of sea and sky and land; of that which comes from sympathy with one's fellow-men, from keen competition with active rivals; of that which comes from actual contact with things in workshop or laboratory, from plowing straight furrows—from the solving of life's problems not found in books. Since there is a whole realm of nature and beauty and art around us, he must spur to individual observation, to individual reasoning, to individual reflection. And out of the fulness of his own mental life, the duty is peculiarly his, not to pour book knowledge, as into a sieve or a tank, but to create by well-timed relation, to foster by wise suggestion, the love for the best in literature, the ability to seek and find the best. "Observation and meditation are more valuable than mere absorption," yet Carlyle is right (when

fully understood) in saying, "The true university of these days is a collection of books. All education is to teach how to read." A chest of tools and its bestowal upon a man who has neither knowledge of their use nor interest in their possibilities will not make a carpenter.

Some thirty years ago a poor, fatherless boy of fourteen, come upon by a townsman reading a novel of the yellow-back, yellow-page variety, was told rather brusquely that he was putting his time and brains to poor uses, and was asked why he did not read the good books of the circulating library of the place. On his reluctant admission that he could not afford to pay the annual fee of three dollars, his interlocutor offered to pay it for him on condition that the boy's first reading should be four books that he would name. The lad happily agreed, and tho he never afterwards was able to attend school, he is today a useful, educated man, conversant with the best in English literature, a ready writer, an eloquent public speaker of national reputation; and his success in life he attributes to this timely interest in his boyhood life, by which his attention was directed toward and his admission secured in Carlyle's "university." And if this one man's future could be so molded by the chance kindness of a friendly layman, what may not be accomplished by the concentrated, well-directed effort of those whose chosen profession is the education of the race?

Time was when the public school was concerned chiefly with the mechanics of reading; today the teacher may pass from the irksomeness of the *how* to the enjoyment of the *what*. The work of the school should project itself into that of the library. Hitherto school and public library have each, with show of justice, taxed the other with indifference and coldness. Since, however, the necessity for combination of forces in the interests of the child has made itself more and more apparent, the need of mutual understanding becomes daily more obvious. In working for the welfare of the children, all personal considerations and prejudices must be lost. The librarian must strive to put herself in the place of the teacher, to familiarize herself with her aids and purposes, that the library may intensify, expand, and strengthen the influence of the school. The teacher must, without trace of narrowness or professional jealousy, introduce her children to the library, and exert herself to see that the acquaintance be satisfying and permanent. We need teachers who are book-lovers, and librarians who are child-lovers. We cannot expect teachers to be technically expert librarians but, besides a good general knowledge of books, they should have some general knowledge of library methods—sufficient, at least, to make the catalog less an unknown quantity to both themselves and the children. And connected with every public library should be a well-paid librarian who understands child nature and its needs. In rural communities, where conditions are so different from those in cities, it is especially necessary that the teacher, who is also the librarian, should know how and when to order books, as well as what books to order. Recognizing the need of some technical knowledge in this regard on the part of our teachers, some

normal schools already are giving general library courses; and the time has come for making this a feature of the pedagogical work in our teachers' training-schools and institutes, that teachers may thoroly acquaint themselves with the library laws of their state, may know how to select a well-balanced library for school and village, how to catalog it, and how to keep a simple system of records. A brief public document course should also be given them, that they may know how to get, at slight or no cost, the valuable material which the state and federal governments have for distribution with a view to promoting better methods in agriculture, forestry, and horticulture. A general knowledge of the subject in its various phases should be made one of the requirements for the receiving of a teacher's certificate.

Out of the opulence of thought made visible, audible, tangible, the difficulty is to make the best possible selection. Whether the average reader recognizes his responsibility in this is a question for the individual. That the school should see and should live up to its opportunities of implanting, fostering, pruning, and training is vitally incumbent upon it. And in no less measure does the duty of supporting and co-operating with the school, by aiding to a judicious, helpful choice, devolve upon the library. It is in this way that not only will the mass as a whole be elevated through self-endeavor, but individual character will be developed to its highest, individual talent. Even genius will receive its meed of encouragement. Mediocrity cannot be forced into genius by increasing the rigor of its surrounding conditions, neither will genius under happier auspices deteriorate into mediocrity. School and library, in their oneness of interest, must ever have in view the greatest good of the many—and what is that, after all, but the greatest good of the individual as well?

On that eventful day when the average, normal boy, the child of the common people makes his first journey toward the schoolhouse, he closes forever behind him the doors of his babyhood and, willingly or unwillingly, trustfully or suspiciously, enters a charmed square whose sides—the home, the school, the library, the state—will ever be about him, expanding with his growth, or contracting to a prison-house if he, too, narrows. His acquaintance with literature so far has been confined to the classics of the nursery; his intimates outside of his home and of his back-yard associates have been the gullible gentleman who hobnobbed with the pieman, the distressed damsel who had lost her flock, that terrible prototype of Henry VIII whose mildest weakness was dyeing his beard, and that no less terrible personage who had such a penchant for Englishmen for tea.

Now comes on his little stage the kindergartner who, after a prolog he dimly comprehends, raises the curtain on sweet, pastoral scenes where every prospect pleases and vileness is unknown. For gore he has roses; for Bluebeard's scimiter the pretty new moon. And, if all tales he hears be true, no longer need he dread "the dark stair where a bear is so liable to follow one,' for the bear is one of the finest of his new friends, overflowing with sociability

and good nature. It is some time before the child can recover from the shock and adapt himself to fit into the social conditions of this miniature Utopia. And the real psychological moment for getting hold of him, for putting into his breast the love of things fine in child lore, is just when his resilience has responded to nature's touch. The novelty of the change has not passed, and all his little powers of receptivity are on the *qui vive.* He has not yet learned to read for himself, but oh, how willing he is to be read to, and how willing are his mates to listen with him. The better the story, the better the attention. Children are good natural judges; it is only when driven to it by lack of entertaining substitutes that they take to trash. And surely with today's ever-increasing store of true, wholesome child literature, there should be no lack of substitutes.

How far the school library itself should be prepared to meet every phase of growing childhood and youth is one of the problems of education. It would seem, however, that the interests of the primary department and lower grades, should be well covered by the bookshelves intended for their use, and that for the upper grades and the high school the library should consist mainly of standard authors, reference books (especially geographical, historical, and biographical), books representative of the best in modern fiction, and such works as may be called for by the pupils' general or special studies in classroom, laboratory, or workshop. Such a library would be sufficiently catholic to permit of individual choice, as well as a general help, and at the same time would be so restricted as to force the eager inquirer out to the public library in his thirst for more. The square is complete, tho not yet is the child conscious that it is. He has at times felt two of the sides of his enclosure, and has vaguely thought himself walking in a lane between the home and the school; the library is a palace of enchantment, thru the open windows of which he gazes upon landscapes of delight that stretch far out to the bounds of heaven; the state is an impersonal "proposition" he has heard discussed in patriotic orations or has encountered in his studies.

And yet it is to the state that both school and library are looking, must continue to look, for support and encouragement by enactment and appropriation. The parent too infrequently realizes his duty with regard to fitting for and working with the school and the library in the interest of his family; all three—parent, school, and library—are the servants of the state.

Hitherto one of these servants has had but little recognition from her master, who has been content to look on and see—or to turn his back and disregard—the tips she has been receiving from those on whom she has happened to make a favorable impression. Now, the tip system is bad and cannot but ultimately produce bad results. We value most what costs us the dearest. Our states, many of them, have made the most liberal provision for public schools, but have quite evaded, or have been blind to the fact that the public library is a part of public education, dovetailing with public schooling. That Mr. Carnegie has been widely and impartially generous in his assistance and

proffers of assistance, that local communities have accepted and supplemented his aid, does not absolve the state from library responsibility. A people, to enjoy all the rights and benefits of ownership, must have earned and paid for what it gets.

There are those still living who see America's free school in states that in their childhood had no free school unstigmatized as a charity institution—the while their fathers were rate-paying according to the number of their children. Since the state's assumption of public educational control, the system, by becoming what it now is, the best in the world, has gradually proved not only its right to an existence, but the value of central authority emanating direct from the people. If then the library is—as educators, philanthropists and other public-spirited men of the day hold—one of the greatest of our educational forces, if it is truly a university of the people, should not it have a chance to flourish under the same fostering care as the public school? In its present dependency upon sporadic endowment by private philanthropy or municipal pride, its benefits reach the individual as a charity, a gift, a privilege (however we may gild the pill), not as his right—his right as a free-born American to lay hold upon its utilities and wrest them to his purpose of making for himself a livelihood and a life, at the same time that he is increasing his value in the citizenship of his country, his helpfulness in the brotherhood of the world.

One of the arguments used against state control of the library is that the influence of such paternalism would be debilitating. This might be the case were the state to purchase a number of libraries outright, and merely throw them to the people. But that is not the very successful course it has pursued with regard to its public schools. Its policy has been rather to reward well-directed effort by offering further opportunity for increase of effort on the part of those it seeks to assist.

In my own Minnesota the establishment and continued support of public-school libraries has been by no means neglected. The state meets the district half-way, aiding to the extent of $20 on its first order for each schoolhouse, and $10 annually on subsequent orders, provided the district itself raises an equal amount. For last year there was a total expenditure of over $70,000 by public schools for books appearing on the approved list of the Public School Library Board, including state aid of about $20,000. This outlay represented the purchase of 105,000 volumes by over 3,000 districts. The reports of the county superintendents for the year showed that out of the 7,676 school districts in the state, 5,586 had libraries with a total of 795,000 volumes.

The work of the public library among us has been strongly reinforced by that of the State Library Commission, which, in addition to sending out its secretary wherever a new library is to be organized or local sentiment is to be created or stimulated in favor of establishment, has under its control a system of free traveling libraries. These, in wisely assorted groups, are sent to districts, upon requisition and proper guarantee, for a period of six months

and their influence is most satisfactorily evidenced by the increasing demand for more of the non-fiction literature. Under a law passed in 1905, library boards are authorized

> to make contracts with boards of county commissioners in their own or adjacent counties . . . . to loan books of said library either singly or in traveling libraries to the residents . . . . upon such terms as shall be agreed upon in such contract.

Thinking that the smaller unit can better provide for its own patrons, three of our counties are following one of the two distinct plans authorized by this law, that of county extension, and are now supplying their entire area from their central library.

Besides these means of public education 74 per cent. of our districts are furnishing textbooks on the free plan; and thirteen years of experience has sufficed to convince us that this method is decidedly better than that of private purchase, one conspicuous advantage lying in the more adequate equipment of collateral and supplementary reading. Especially in rural communities, this system leads direct to the upbuilding of a school library. It is a most helpful ally of those interested in the library movement.

But we do not expect to stop here. We hope that even in the most isolated rural district where the small school library finds a humble home, and the traveling library pitches its tent for a season, these are but the pioneers, the precursors of a better day not far off. In some of the sparsely settled communities unable to support a church with a regularly ordained minister, it has been the custom of the people to assemble at intervals at the schoolhouse on the hill to hear the gospel from the lips of an itinerant priest; but presently, when the country round about has settled, there springs up the small white meeting-house, truly "of the people, by the people, for the people." They have come into their own. So shall it be with the library—"first the blade, then the ear, then the full corn in the ear."

Someone has wisely said, "No community is so poor that it can afford not to tax itself for public school education;" and certainly no community is so poor that it can afford not to tax itself to provide for its people a university of the best books—a legacy to us from the most inspiring men and women of all time. Let the state, by appropriation, meet any community half-way in the establishment and maintenance of a public library, and it will be found that this encouragement not only does not repress, but that it actually stimulates, private philanthropy and local spirit to fresh exertion. By having the authority vested in a state public library commission, that would have the power to refuse aid in the acquisition of any but the best books, the most skilful manipulations of the most artful book agent with the most plausible story and the most hypnotic eye, even when brought to bear upon the most sensitive subject, would be completely frustrated. In his own picturesque language, he would "see his finish."

During the first three quarters of the last century, library development was slow in purpose, method, and expenditure, but since 1875 the growth has been

marvelous. In 1800 there were in the United States but sixty-four libraries for public use, while in the last year of the 19th century there were over ten thousand with a total content of forty million volumes—and half of the libraries then in existence owned over one thousand volumes each. With state encouragement become general will come still greater life. So far it is the cities mainly that have been the objects of the book-loving philanthropists' interest. "To him that hath shall be given." It is in them that are daily springing up beautiful library buildings, educative in themselves, to say nothing of their contents.

And on the city, with its population, wealth, and facilities, its wider opportunities for improvement and culture, will naturally devolve the responsibility of hastening the new order of things. The remotest districts of the country have contributed their best to her upbuilding. What is to be her return? Only by sending out her best to the most isolated community can the debt—interest and principal—be paid. State superintendents, normal school and college presidents, and others vitally interested in humanity have here a field of service limited only by their willingness and ability to serve. You and I must carry the campaign from desk to legislature, from district to district, until the consolidated school, representing increase of numbers, wealth, and interest, can generate the energy and intelligence that will meet the newer demands of complex modern life by providing for its patrons concert and lecture, literary club, and library. The state needs new Horace Manns to awaken the public to an appreciation of the needs and possibilities of twentieth-century culture.

One of the most encouraging signs of the life and growth of Christianity in our day is the effacement of denominational prejudice, the fusion of denominational charity in one great, common, helpful love, so that Anglican rector, Catholic priest and Methodist deacon may meet together for fellowship and stimulus, for interchange of ideas regarding the betterment of themselves and others. One of the most hopeful evidences of the life and growth of modern education is the programs of its state and national educational associations—for the names on them are the names not of school men only, but of notable representatives of every educational movement, industrial, social, intellectual. It is thru these that we look for the realization of a realizable ideal—the unification of the work of the library and the school.

And this uniting of interests will eventually solve the problem of what we are to do with our leisure. In the last fifty—even the last twenty—years, the saving of time in travel and in service has been incalculable. The wizards of nineteenth-century invention, thru railroad, telegraph, and telephone, have conquered distance; the old twelve or fifteen hours of daily servitude have been reduced to an eight-hour maximum. But how will all this saving of time advantage us if we are ignorant of its value, indifferent to its wasting, unable to spend it profitably? The school must, therefore, reveal to the child its worth and create in him the ambition to make the most of it; the library

must put in his hands the best tools for the furthering of this ambition and teach him how to use them.

The daily newspaper is considered—and justly—one of the necessities of our daily life. Its influence, whether it represent the best efforts of the modern press or is to be classed as yellow journalism, is powerful and widespread. But be it the most elevating in its editorials and general scope, too much time is given to the devouring of its details. Now, as it has become the practice of the public school to devote certain time to the discussion of current events, could not this discussion be so made to tell upon the newspaper-reading of our immediate future that a cursory survey of the sheet —with an instant of pause at the headlines, a passing-over of the "irrelevant and immaterial" and worse, and a grasping of the editorials and real news of consequence—will occupy but a few minutes' time? And could not this plan, with some necessary modifications, be adopted in the reading of the lighter magazines? Interesting as they are in text, pleasing in illustration, and useful as they may be in their chatty condensation, they can no more take the place of the more purposeful, larger literature than can the malted milk tablet or peanut butter take the place of the staples of ordinary diet. It seems reasonable to hope that the school and the library, in training for world citizenship, will do much toward the relegation of these things to their proper place in life, to the seeing of them in their right perspective.

I would not have it inferred that this paper's failure to mention school boards in these various connections implies their freedom from any responsibility or duty in the wider-spreading and deepening of general education. As part of the school—which is partner of the library—it is theirs to co-operate toward these ends, theirs in placing new burdens upon the already tired shoulder of the teacher, to ease it of others less necessary to be borne by her; theirs to adjust the plan of local schooling to meet the growing requirements of the entire scheme.

But not with the rise and growth of public libraries in every village and hamlet of the nation does all responsibility for the individual terminate. As the school was the first to take the small boy by the hand in welcome when he came from the shelter of his home into an unknown world, so will the library be the last of his teachers to take him by the hand and bid him godspeed when he leaves that world for his last home. Tennyson died with Cymbeline in his hand; Wolfe went to his death chanting Gray's Elegy. He ought, then, in justice to himself, to make this acquaintance most intimate and personal. As one of his state and his community, he has an abiding interest in, and should seek to the full the benefits of the libraries he has helped to purchase and build up, especially those in his immediate neighborhood. But his own growth can be best promoted, his own tastes best met and developed, by individual ownership. In the public library he has made acquaintance and friendships, just as he has made them in the world outside, but among them is the gradually increasing group of these he would fain have gather at his own

fireside. And he should begin in his boyhood to send out his invitations, one or two at a time, as his natural bent, his eager curiosity, his ripening tastes demand. His developing individuality, quickened and fostered by contact with the school and the public library, is the best guide to variety. That his shelves will contain volumes enough that his matured judgment will repudiate is obvious—otherwise his boyhood must have gone through a process of unhealthy forcing; but as the gravest, soberest of men, take pleasure in going back over the years to the too short days of their happy boyhood, so will he be likely to have a warm paternal interest in those friends of his childhood, youth, and budding manhood. His collection should be his biography, marking in groups or in singles the paths he has pursued, his stopping-places, his defeats, his victories. It is by appreciative use of present opportunity that the individual opens for himself pathways to the larger opportunities of the future, highways to power, avenues to fulness of life. It is by training the readers of today that we prepare the writers of tomorrow and so insure for the race a literature ever progressive, presently helpful.

THE INFLUENCE OF WOMEN'S ORGANIZATIONS ON PUBLIC EDUCATION

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Education is evolution. Education not only develops the mind but it marks out the lines along which it must move, along which it meets the least resistance. There are fixed laws which must be sought out and applied in any rational system of education. Psychology seeks to set the bounds of education and to discover and make known the laws within those boundaries. But ratiocination has ever been an uncertain pilot in the intellectual and moral seas of life and has often listened to the voice of desire and steered the ship into the dangerous whirlpools of the unknown. The compass of psychology points in as many directions for the north pole of education and produces as great astonishment in its amazing conclusions as did the compass of Columbus. The educator and philosopher is ever trying to box this compass of the human mind and ever finding unknown directions and drifting into unknown waters.

The philosophy of education is faulty today and it is questionable whether by pure philosophy it can ever be perfected. Reason has not furnished, and, may I say, cannot furnish us a complete system of education. The compass Columbus used was as correct as the compass we use, it turned to the magnet as readily as ours, but the fifteenth century navigator had not acquired a chart of the ocean. Such a chart must be furnished by experience.

In early ages man sought to withdraw from society in order to educate himself, but this seclusion had its reflex influence on him and left him unfit for practical life. Man has a twofold nature, individual and social. Each must be educated to make a full-minded man. If the individual only is educated, he becomes selfish and has no interest but in himself; if the social is altogether

educated he loses his identity and is of no practical benefit to himself or any one else. Such men are said to be over-educated, but in reality they are under-educated.

Individual or social, the early idea of education did not include women at all. It was for the few and those few were men. While it lived, if it was alive, in the monasteries, it was inevitable that it should be colored by its surroundings. Facts of life had to be harmonized with the fictions of religion, and the facts of religion were often compelled to bend to the fictitious phases of life, war itself and its cruelties becoming righteous if it was a crusade of the faithful against the unbeliever.

The student had his place and kept it. Finding only too frequently but little comprehension of his learning among his fellows, he naturally did not try it upon the great unwashed.

Popular education began to dawn with Luther, who made people want to read, and with Gutenberg who made it possible. The Puritan might be a man of one book, but he knew that book by heart, and having done away with the monastery, he began a system of education still sectarian in form, and still intended for persons who had no need to earn their living by the sweat of their brows. With the reading of the Bible twice a day in the home, and its consultation upon all grave occasions, it followed as the natural corollary that the daughters learned to read it also, and that was the beginning of female education.

It was a noteworthy fact that the first public school of the New England colonies was built on ground given by a woman, and the great university on the Pacific slope was largely the gift of a woman. It is a far cry from Bridget Graffort, 1720, Boston, to Mrs. Stanford; and if Mrs. Stanford took measures to prevent too large a proportion of female students, Bridget's soul was never troubled about this at all, for girls were not thought of in connection with the Puritan school.

True, there was no organized demand for higher educational opportunities among those Massachusetts damsels, but the very fact that their opportunities were few and limited made those girls make the most of them; and some progress must have been made in the two decades between 1806 and 1826, since we are told that at the former date, geography was a study seldom permitted to girls as being "indelicate as well as useless," while in the latter year the first high school for girls was opened in Boston amidst a storm of opposition. Two years later, Boston yielded to the universal clamor and closed the school, which the records state had proved "alarmingly popular" among the girls.

Not unlike the reception of the first girls' high school reads the account of the founding in 1868 of the New England Woman's Club in Boston and the Sorosis in New York. We learn that "they were the first literary clubs among women, and met severe and trying criticisms, the opposition to the idea of women's clubs being exceedingly bitter and intolerant among both men and women."

The foreboding as to the results of educational opportunities for girls and

the foreboding as to women's clubs and the results that would come from them have alike proved groundless. While the clubs originated for social and intellectual advancement, they soon developed an earnest and unwavering desire to help their communities and their times. To the founder of the Sorosis Club, the movement signified "the opening of the door," "the stepping out into the freedom of the outer air and the sweet sense of fellowship with the whole universe that comes with liberty and light."

Things we once despised are found after long years to be necessary. Since the time when Adam's rib was removed and by the hands of the Creator mysteriously wrought into a subtle human being called woman, to quite recent times, man has looked upon her as an unnecessary and meaningless thing, whose sometime charm was the only reason why she should be allowed to trespass upon the earth which was barely large enough for himself. But gradually man is outgrowing this primitive idea of woman's limited share in the inheritance of the universe. In the hospital she may be a nurse; in the school she may be a teacher; in the office, a stenographer; in politics, a follower. He allows her an afternoon off to attend the club. So, gradually she has gained point after point until now she aspires to help in the important concerns of life. She does not ask to manage, to direct, but only to be allowed to help. If she can, with tender hand, place the bandage on the suffering patient, if she can with encouraging sympathy give a cup of cold water to cool the parched tongue, why may she not do more? Are there not other places where she may help?

If she cannot assist man in his philosophy of education, if she cannot *evolve* the thing, may she not help to *environ* education, so that the forces shall not be so prodigally spent? She now has an organization that she has been perfecting for years, numbering over 800,000 and of the best in the land. The members of this organization, as the mothers of children, are closer to them than the fathers, who are burdened with the commercial side of life, can ever expect to be. Men are doing the material work of the world—building its bridges, feeding its multitudes, and bartering in its marts; and women, who are comparatively free to devote their energies to their children's training, are the natural allies of the professional educator and coadjutors in the work of properly developing the child.

Is there a place for woman? Does she not approach the school from a different viewpoint from man? It is important to note that she comes to it from the outside; not being a teacher and free from the scholastic prejudices of the teacher, broader in her plans and having wisdom born of knowledge of the homely affairs of life and a sympathy nurtured in the environment of her own children, she may expect to bring forces to the work that can be obtained nowhere else.

The school of the past, while we are thankful for it and have only praise for those faithful ones who spent their lives in trying to help on the rising generations, failed to meet the wants of the day, and turned out the child edu-

cated in a sense but not well enough adapted to meet what life required of him. The courses of study seemingly followed the law of the Talmud, "Take a child of six and load him like an ox," while they have forgotten that it also required him to learn a trade by his twelfth year lest "he otherwise learn to steal."

Too long have we clung to the old idea of learning, gained thru those centuries when its feeble life was preserved in monasteries, and which did not fit man for life in the world. His business was to know arbitrarily, not by putting in practice. With woman it is otherwise. She has been brought up on the homely proverb that the proof of the pudding is in the eating. As soon as she begins to learn, she wants to put what she has learned out at interest to discover whether it is really true or only a glittering counterfeit that can bring her no returns.

And so, naturally, her whole system (and a most unsystematic system it has been at times), is a kind of educational method. Beginning with books, she is slowly turning to life itself for lessons not to be found in any library.

Is it any wonder that women have always taken more kindly to the kindergarten idea than men? Their whole brief experience has been on the approved Froebel doctrine; they have "learned to do by doing," and while their educational ideals may not have been so high as those of the world's great savants, they have been broader. To them it seems more necessary that all children should know how to read and write one language than that a few college professors or monastic anchorites should know a dozen or so languages—dead or alive.

If the scholar of the closet can say, "Too low they build who build beneath the stars," the women of the clubs have remembered that He who placed the stars in the heavens, also set His bow of promise in the clouds of earth. The truly educated child is practical, is adapted to his surroundings.

And here we revert to what has previously been said that reason could not formulate an ideal education. The coals must be brought hot from the furnace of experience to kindle the fires of life. There is great advantage to be gained by accepting this help from outside the school. Woman's chief interest is first and foremost the welfare of the children. The primitive woman, sheltering her offspring from the elements antagonistic to its existence, the civilized but intellectually undeveloped mother lavishing often unwise care upon *her* children, the woman, intelligent and conscientious, taught thru association in mutual interests the value of united effort and thru wise direction the true needs of all children—each has filled her place, and the law of the survival of the fittest ordains that the last of the three shall be the woman of the future.

Undoubtedly there are women who do not understand the obligations entailed upon them as mothers, and who fail to perform even the obligations of which they are aware. Undoubtedly there are school-keepers who are not teachers either born or made. School-makers and home-makers each have their limitations, but one class must help the other more nearly to fill the part

which each should play in shaping the destiny of the child. If "education is life," the child must have the united work of both to be properly educated.

The states with the highest educational facilities are those where the women are the most active. They have been largely instrumental in bringing about the establishment of ethical and industrial training. They have steadily agitated the economic questions of the schools, having always been unjustly discriminated against in the matter of payment for services.

A noted sociological student writes: "Illiteracy looms largest where women have least power and grows less where they vote. Of the twenty states which have fewest illiterate children, women vote on school questions in eighteen. We have half a million illiterate children in this country and nearly two million children working for a living. In this we rank with Russia, and not with the enlightened states of western Europe." Now, how can we continue to boast of American opportunities when we have to admit the existence of this terrible disgrace?

Surely there is need for the women of this country, whether in clubs or out of them, to come to the rescue of these two and a half million children. It is admitted that the nature of woman is powerful in its influence on the race. Infinitely superior to even the influence of many women in sporadic attempts to influence the race must be the organized, conscious influence of woman. Woman herself is not exempt from that law of evolution—organization. We must all "join hands" and "pull together," if we wish to effect much. Woman has not been with us in education in the past. She is now with us individually. Do we not need her with us collectively?

The organizing of women for the first time is one of the splendid achievements of the nineteenth century. Up to that time women's lives had been isolated. They had existed only as separate individuals. The experience of men for centuries of working in organized masses was unknown to women. All through the ages appear heroic figures of women, like Deborah, Miriam, Joan of Arc, Elizabeth of England; but these were leaders of men. It remained for our own generation to develop among women leaders of women and to organize women in every community. Matthew Arnold said, "If ever the world sees a time when women shall come together purely and simply for the benefit and good of mankind, it will be a power such as the world has never known."

The world is beginning to see that time. Will Arnold's prophecy be fulfilled? Let us consider some of the work that women's organizations have accomplished in the cause of education in the schools, and in the country at large.

Upon first acquaintance with the list of responsibilities these organizations have boldly assumed and the objects they seek to compass, the inquirer might readily be reminded of those who are said to "rush in" where certain others "fear to tread." But as investigation continues, the same inquirer is led by

proof of successful accomplishment to conclude that the organizations may have been bold, but not "too bold."

No magnificent libraries built by a female Carnegie dot our land, but traveling libraries founded by women's clubs are circulating in the most remote corners of twenty-two states. In the state of Colorado the Federation of Women's Clubs organized and for two years wholly maintained the Free Traveling Library system. In 1903 the legislature recognized its value and popularity by making the Women's Club Committee a State Commission, and now over six thousand volumes are reaching the farthest mountain fastnesses and the most lonely settlements of the rainbelt.

The work of the women's patriotic orders has been extended in nearly every community for the furtherance of the teaching of patriotism and knowledge of our country's history. We all learn by concrete lessons, and the giving of medals for essays on patriotic subjects, the presentation with ceremony of flags to our public schools, make an impression more lasting than the learning of pages of written history. The Committees on History and Landmarks, from the women's clubs, have aided greatly in patriotic work, having successfully labored for the preservation of old missions in California, of Indian mounds in Wisconsin, the collection of historical data in Washington, Louisiana, and other states, the purchase by the state, of the Alamo battle-ground in Texas, the erection by the women of America under the direction of the Oregon club of a bronze statue at the Portland Fair to the only woman connected with the famous expedition, the squaw Sacajawa, to whose guidance Lewis and Clarke were greatly indebted for their success; the preservation of the cliff-dwellings in Colorado and Arizona, of the Palisades in New York and New Jersey, the preservation of Niagara Falls, and the purchase and maintenance of the Mount Vernon estate.

Whether we contemplate the women of South Carolina strugglng to obtain a state industrial school for boys—and succeeding—or the women of Tennessee planting schools in their eastern mountains, or the women of states east and west, variously striving for better child-labor laws, or as in Tennessee, for the enforcement of such laws already enacted; or whether we note the work of that grand federation of clubs in Massachusetts which offers sisterly aid in several states, even maintaining a school in the Great Smoky Mountains; or whether we commend the securing of good compulsory education laws and officers for their enforcement, on the part of Kentucky, Mississippi, Montana, Colorado, and the District of Columbia; or the establishment or active support of a juvenile court in Georgia, Utah, Kentucky, Ohio, Pennsylvania, Texas, and California, and our Denver juvenile court of national reputation, where Judge Lindsey frankly ascribes his continuance in office to the organized effort of the women—whether we dwell upon any or all of these manifestations of the club-women's spirit, we must concede that they justify their claim to the motto, "Nothing human is foreign to me."

In the comparatively new line of arts and crafts great activity has been

fostered. In every town or city where the woman's club has taken root, the Art Committee found schoolrooms barren of picture, statue, and bust, and has left them richer sometimes by one copy of an immortal painting, and often by a complete, harmonious decoration of an entire building. Whole communities —such as Deerfield, Massachusetts, and the club towns of North Carolina— have found inspiration and livelihood in the revival of ancient arts beautiful and culture-full.

The Minnesota Federation enjoys the distinction of founding a State Art Society which has from the state an appropriation for the purpose of holding annual exhibits of works of art and handicraft, and for providing a course of lectures each year upon art.

We may have heretofore associated the state of Texas more conspicuously with cattle than with art, yet it is the Texas women's organizations that have established a college of industries and arts for young women.

In the domain of household economics which has always been sacred to women—may its shadow never grow less—the modern club woman is quite as much at home and more able to entertain the public than women in the days of our clubless grandmothers. Perhaps their nearest approach to working in combination was the preparation of the Thanksgiving feast and their prophetic souls could never have anticipated that their granddaughters would establish chairs of domestic science in state institutions and secure the enactment of pure food laws in twenty-five states and the national congress.

"Whatever we want in the nation's life we should put in the school," sounds well. The truth is that whatever we would have in the nation's life we must have in the homes that make up the nation, and if we would put it there, we should have less complaint of the schools, and this the women are finding out. They are learning that there is much to be done to supplement the meager homes we have; people are discovering that there is a wide difference between food and things to eat, and that it is possible to be overfed without being nourished. And as they learn themselves, they spread the gospel of the simpler life by means of college settlements, neighborhood houses, day nurseries cooking-classes and sewing-schools.

The recognition of the need of scientific temperance instruction was brought about by the work of a great woman's organization—the subject not always well taught as yet, but ever important.

Without the erudition of the clubs, our grandmothers knew that "the way to a man's heart is through his stomach," but they had not learned to *pave* the way with training-schools for girls and domestic science in the schools of many states. The introduction of handiwork into the public schools has given them a practical interest to the children. There is need of further effort in connecting school routine with the realities of life else we should not need such stringent laws for compulsory education. Because children will not go home we blame the mothers and pass curfew laws. Because children will not go to school we pass laws, hire truancy officers, and continue to blame the parents instead of

cabling the Mikado to learn why his subjects want to break into the schools our boys run away from.

The women's clubs all over the country have done most effective work in organizing children's humane associations, thus implanting justice and kindness in the young. When the clubs of the country follow the example of the State Federation of New Jersey and resolve never to wear aigrettes nor baby lambskin, the wanton destruction of innocent life will be checked. The humane-education crusade must also eventually result in making children more considerate even of their parents and teachers, overcoming the influence of the present distorted conception of children's rights.

Since the masculine mind is proverbially the one to solve great problems, it is not surprising that minor details of school economy have been left for the feminine mind to grapple with. The mothers are the ones to hear the cry, "What shall I do?" and "Where can I go?" and to proceed to the acquisition of playgrounds and vacation schools in the cities. The success of those now secured promises soon to be followed by many more. The National Congress of Mothers through its local committees comes in contact with every school in towns where its branches are established and, judging by the strength of Denver's committee, whose chairman is also president of the school board, the voices of the mothers are being heard in the land.

That modern women are learning what was once thought beyond the female capacity—some business management, is shown by the free scholarships and loan funds in the gift and under the control of the various state federations. The Michigan Federation of Clubs has a five-thousand-dollar fund, the interest of which is applied to educating girls. That of Texas has twenty scholarships, Utah two, Colorado nineteen, Kansas eighteen to bestow; New Hampshire is educating four girls at the State Normal School and working for higher teachers' salaries, while in other localities, teachers' pensions have been obtained by women for women on account of length of service. Mississippi assisted eight girls in one year to education, while one enterprising federation helped thirty-one girls to complete their normal course and become teachers.

And the desire to help all children is shown by the unusual scholarships of the Los Angeles clubs and of six other cities where a sum equal to what his earnings would be, is paid weekly to the child who is the support of a disabled parent, upon presentation of a certificate of attendance from the principal of the school.

The true import of women's organizations and efforts has been misunderstood. The school people have often regarded their committees as meddlesome and their advice uncalled-for. But this antagonism is unnatural and undoubtedly due to misdirected, if zealous efforts, or to some unfortunate personalities. A common bond should unite as fellow-workers the mothers and teachers of the land.

The special phase of woman's development expressed in the woman's clubs

is not considered by thoughtful women as an end in itself but as one phase of their social evolution and an important means toward the attainment of that larger life which they know to be their rightful heritage. They realize that the heart of the movement is opportunity for greater usefulness and unselfish service—that all who labor effectually are agents of that Power which works in and thru this universe, and in doing whose work lies the only true happiness.

One who has studied the subject of architecture tells us that the buildings men raise reflect the spirit of the times. The Acropolis of Athens perpetuates the religion and art of ancient Greece and still tells of its glories. In Rome today, the ruins of the Coliseum and the Forum overshadowed by the palace of the Caesars, breathe the spirit of war, of the exaltation of law, and of imperialism. The cities of the Middle Ages cluster about the great cathedrals—the common market-place close to the sacred structure—and tell of the church dominant in the heart of the city and the citizens, overmastering with its mystery and towering in vastness, age, and power over life's other, trivial concerns. In northern Europe, we find the town halls where the republican citizens transacted their business, and the belfries from which their alarums rang. The lofty buildings most in evidence in our own country in the nineteenth century typify the commercial daring and aspiration of the age.

The examples of architecture which embody the most uplifting influence of the twentieth century should be the schoolhouses. Not immense structures where the individual child is lost sight of within, and crowded into the street without, but planned with reference not only to his intellectual needs and the culture which will make him superior, but also with their books and pictures, their playgrounds, gymnasiums, and gardens, their departments of industrial training and their halls designed for the use of the people—these buildings will show the influence of woman's acceptance of her responsibilities and her co-operation with the professional educator. The two forces working together will provide for the child those means of growth and development which will help him to arrive at his full estate and, by his increased intelligence and his ability to apply it to all things great or small, to exemplify the truth of the doctrine that "real education is life."

DISCUSSION

Adelaide Steele Baylor, superintendent of city schools, Wabash, Ind.—In listening to the paper just read, I was especially interested in the enormous amount of work attributed—and rightly too, I believe—to women's clubs; but in spite of all this, I am of the opinion, that their greatest work is yet to come. There is no problem so serious today in the regulation of the affairs of education as that one affecting the relation of the public to the school. Parents are not familiar with the school system, its needs, and organization; teachers know too little of the affairs outside of the schoolroom, and while much has been done by various meetings and methods to lessen this tension, it is still far too great for the best interests of the school and the community. The public expect things that the schools cannot accomplish, and the schools undertake things that do not have practical results so far as the public weal is concerned.

The school talks work and teaches work, but does not make workers, many times, while the public too often feel that it is the purpose of the school to make doers of a particular type, rather than doers in general. Is it not probable that the solution of these problems comes within the province of women's clubs? By the selection of members, the election of officers, appointment of committees, arrangement of programs and topics to be discussed, may not these clubs make a study of these conditions, with a view to making the situation better? Would it not be feasible and beneficial, if all the women's clubs in the country should set aside one or more days during the year for the discussion of the school system, with a view to bringing about a better understanding between the school and the community or public in general? It seems to me that here is another problem, the solution of which might add one more honor to the splendid list just enumerated by the speaker.

*CALL NOTHING COMMON**

BENJAMIN IDE WHEELER, PRESIDENT OF THE UNIVERSITY OF CALIFORNIA

Human society of the present time and place evidently believes in education. It is inclined to stake its life upon it. It believes on the whole with a faith that is childlike and bland. It is often perplexed about what to teach and why, and how to teach it and through whom, and yet the perplexities seem only to sanctify the deep mysteries of paidology, and strengthen faith in the systems that issue from the cloud-wrapt mount of education. If education fails in an individual case, the faith is still strong enough and the charity gentle enough to judge that there ought to have been more of it in quantity, or else a higher voltage; the operation was successful, though the patient died. For all the social ills education has come to be as universal a prescription as bloodletting in the older medicine. If people are leaving the farms, if divorce is undermining the family, if the political machine is looting the cities, the remedy is to be found in education; the schools must look out for it. This is the habit of opinion today. The habit appears to be a good one; the opinion is presumably in substance correct. Surely we of the craft are not inclined to discourage it. But the demand comes in the avalanche form. Those that would be healed throng upon us and "cannot come nigh for the press;" men are fain to uncover the roof and let down the sick in beds upon us. Despite the gratification this cannot fail to bring to those who have chosen the field of education for a lifework, in that their special product promises to gain enhanced value in the markets of human estimate, and their profession has thereby prospect of rising out of the relative disparagement and depreciation which have through the ages, notwithstanding much theoretical blandishment, in actual practice really invested it—despite such gratification, we must be conscious that the situation brings with it grave responsibility and no little ground for apprehension. We know that any man whom public opinion has grossly overestimated is in serious peril—peril before the reaction that must follow disillusionment, and yet greater peril for his own character in the temptation to perpetuate the deception by false devices. The profession of medicine

* By request of the author the simplified spelling forms adopted by the N. E. A. are not used in this address.

has had its sore experience from accepting the blind popular confidence in its knowledge and command of drugs; it has seen the reaction tear from its hands the control, and open the door to the pitiful deceits of quackery and the patent medicine and to multiform vagaries of ignorance and superstition. Out of this experience the best medical practice of today has learned to limit its sure claims to what it knows it can actually do, and to deal frankly and objectively with patients and disease.

If we as a profession of teachers find that we are responding to crude popular demand by dealing out our one medicine, the exact varieties and potencies of which we do not notice, and the precise workings of which we do not understand, treating all cases out of one bottle and blindly following traditional recipes and formal courses of treatment, it might be time for us to adopt as our own the burning proclamation: "An evil and adulterous generation seeketh after a sign, and there shall be no sign given to it." We will not at any rate cloak our helplessness under the schemes and schedules and curricula of other days or aimlessly rely upon mechanism devised for other and nearer ends; nor will we, of all things, encourage a public credulity which blindly trusts in all the doings of the schools and colleges for all purposes, so long only as they bear the sacrosanct name of education, and assigns to them some thaumaturgic power by mysterious process to make black white and the white matter of brains gray.

If we still do not know what subjects should be taught, or why, or how they should be taught to give appreciable results, we can at least be frank in confessing to ourselves the limits of our own ignorance and candid before the world in claiming no command of mysterious processes. If we have applied the light of biology and of psychology and of sociology and of the history of human training and of statistical science to our inquiries, and have thus far been disappointed in our results, we shall do well frankly to state the measure of our disappointment, as a safeguard to what we really have learned and a guarantee to ourselves against self-deception and to the world against disingenuousness and pretense. If we have indeed with all our searchings in pedagogy found no device of human training that finally takes the place of the warm life of the teacher; nothing that can replace it, or be in any wise commensurate with it; nothing that can provoke a deposit of good education out of a bad teacher; nothing whether of subject or method that can get bad education out of a good teacher; we can safely reaffirm our old faith in the old educational doctrine of "the Word made flesh," and adopt the fullness of the proclamation: "An evil and adulterous generation seeketh after a sign, and there shall be no sign given to it," but the sign of the teacher and his living personality. If there is any mystery in education, it is the one, lone mystery of the inspiring and converting power of personality.

At the very heart of the present-day belief in education is our people's faith in the common schools. They have developed *pari passu* with our democracy. Our people are persuaded that the maintenance of our peculiar institu-

tions of popular government is dependent upon their existence, and the full and successful working of these institutions upon their efficiency. There has appeared no competent reason for impugning the wisdom of this decided and increasing popular conviction. Not all the graduates of our common schools become good citizens, nor yet of our universities; but statistics assign criminality overwhelmingly to the class of the illiterates. We do not teach young humans reading in order that they may read the constitution; their understanding might conflict with that of the Supreme Court; but we teach them reading that they may share the thoughts and observations of people of other place and other time, and so be delivered from slavery to the immediate vision, and to all the prejudice and ignorance and mal-judgment which such slavery involves. At the basis of orderly living, which *is* moral living, rests the power to discriminate as to what belongs here and what belongs there; next comes the will to classify accordingly. We cannot therefore omit the equipment and training of the intelligence from the training that prepares an individual to live his life in community with other people's lives. That means moral training. Moral training is always implicit in all the work of the common school, though the commandments be not stated or the code rehearsed. Obedience to the public laws is latent in the discipline that the school exacts, though civics be not taught and the flag be not saluted. The real democracy of equal opportunity, fair give-and-take, and a scratch start, ancestors barred, is involved in the assemblage from many door-yards upon the benches of the common school, and the indiscriminate tumbling of future citizens of variegated fates during recess in the schoolhouse yard. The democracy is there, waiting for you, though Jefferson and the fathers be not named.

No, the people of the nation have made no mistake in their confidence in the public school as a training for democratic citizenship or as a guarantee of the continuance of free institutions. Their one solicitude must be lest changing conditions of social life dislodge it from its place and throw it out of tune with the democracy it was set to represent and support.

Our democracy involves no proposition of equality of achievement, but straightly and supremely equality of opportunity. It was devised in the protest against the privilege of class. It anticipated the modern doctrines of heredity, and trusted men, in the opportunity of a fair field and in the strength of their divine inheritance, to rise as individual creations out of the disease and thraldom of their parentage and the limitations of class and craft and caste. It meditated no crime against nature; it bandaged no feet and strapped no skulls. It established no standard size of foot or brain; it set no bounds upon spiritual vision, upon intellectual reach, upon inventive imagination, upon creative skill, or upon the acquisition of substance, except as the rights and free opportunity of others might be impaired. It proposed to give every man a free chance to make the most possible out of his single life. It was conceived as a gospel of self-realization for the sons of men.

It is as a faithful counterpart to such a democracy that the public school

must be kept. But if you have called it the common school, as the nursery of a hopeless mediocrity, and if with the name you have thought such a thought, or devised such a use, you have torn it away with treacherous violence from the very spirit and life of the democracy in which it had its birth. It is and must be kept the school of the best nurture in the best things.

We too often hear the remark that the teaching and studies of the public schools must be shapen to the needs of the children of families of moderate means, or of no means, or the children of the masses, or of certain classes; and that if wealthy parents want to give their children a better education or one that leads to higher station they must send them to private and special schools. All this is the voice of a spurious democracy. It is no democracy at all. It is a reversion to the notions of the "ragged school."

It is the voice of class spirit. It contemplates the classification of helpless children according to conditions of birth, and deliberately proposes to rob them of full and free opportunity. Who knows that the children of the poor or lowly do not need to study certain things? Who knows that they will not make full use of the best instruction and the best courses of study? Experience seems to show that a larger percentage of them make better use than do the offspring of the mighty.

The children of the rich labor already under disabilities enough without being isolated in private academies and being inevitably limited for their later acquaintanceships in life to those whose scope of vision and range of action is hedged about with all the paraphernalia of yachts and motors and multiplex horses, clubs, assemblies, valets, and innovation trunks. Both by the limited association in school and by that of after-life these children of the rich are disabled for largest usefulness through their inability to know the mind of the great body of the people among whom they are to live. Their separation is also a loss to the community, and the creation of a fixed caste a detriment and peril to society. We surely ought to beware lest we are doing anything to drive such pupils from the public schools or omitting to do anything that should hold them. For pupils who require special treatment or tutelage, either through their own weakness or through lack of home influences or through the desire of their families to provide such special tutelage, the private school will always have its place and mission; but if the private schools and academies are offering anything else of method or substance or curriculum that is better than in the public schools, it behooves us to find it out. What is good for the children of the well-to-do is peculiarly desirable for the children of the moneyless —unless indeed we deliberately propose to use the public schools for the creation of social strata instead of their prevention.

The public school must be made and kept the school for all without recognition of classes or conditions, and it must shape its work and plan so as to close no door but rather open the freest opportunity for the best achievement and the highest advance. The present rigid system of the grades, whose chief excuse has been economic necessity, must yield to permit the more rapid ad-

vance of gifted and diligent pupils. The old district school without the grades was more humane. Nowadays the machinery of grades and courses is wondrously perfect, but the school exists for the child and not for the grades. The place of a child in reference to the grades is at any time to be determined not by what he has gone through in the past, whether of pages or classes, but by the work he is able to go on and do next. Too many minds and too many wills and ambitions are dulled by the routine and treadmill of the grades; and that means bandaging the foot and strapping the skull to produce a standard size. Particularly do the two last years of the grades need to be refreshed and readapted. There is too much threshing of old straw in them; they are too wooden; they lag behind the growing life-interest and the advancing mental cravings of the pupils. After completing six grades a boy is ready for something new and something that will lay hold upon his opening interest in the processes of life. If you withhold it you may lose him or at any rate his interest in the school; and if you lose that, you might as well lose him. Your boy is twelve years old or more. Now is the time to offer him the opportunities of instruction in the industrial arts, or the agricultural arts, or in business practice, and now is the time to begin language study if any foreign language is ever to be learned. The fact is that our old one-story ranch house in which we all lived together happily around a court has been gradually transformed, now that the city has grown up about it, into an eight-story tenement house (with basement and roof-garden), and we are shocked to find how much of our time and strength has to go into merely climbing stairs.

So much by way of illustration, but the flash of an illustration must not daze the doctrine; the public can afford to have for the public schools the best teachers, the best equipment, the best studies and courses; it cannot afford to have anything else.

The common school is of noble name, noble like the commonwealth it stands to represent, but he who falsely shifts the value of its name is warned he dare call nothing common or unclean that service of humanity at large has cleansed.

A SIGNIFICANT LACK IN EDUCATIONAL TERMINOLOGY

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While an excess of technical terms in a given subject may suggest pedantry, an insufficient supply of such terms may not unfairly he held to indicate a lack of clear thinking. The absence of a word to indicate a quality or relation shows that the quality or relation in question is not felt to be of practical importance. In educational terminology there is at least one striking example of such a lack, the unnamed concept being of first rate importance.

In exact writing, teaching and education are generally treated as more or less technical terms, teaching being confined to the process of conveying information or at the best imparting skill, while education deals with the process of deliberately modifying the development of the nature of the person affected.

Obviously education is the wider term, for while all forms of teaching have a more or less direct educational effect there are other ways than teaching by which education may be carried on. It is true that many claim to be educators merely because they are teachers. In the United States in particular the words teacher and educator are being more and more used as synonymous, the word schoolman being treated as a technical term to include both actual teachers and those engaged in educational administration.

That education is not by any means confined to the school is shown by the very words used to express what we ordinarily understand by the term. Among the Greeks παιδεία meant primarily the rearing of children. The German *Erziehung*, and the French *élever* have the same primary meaning of rearing, or bringing up. The familiar American form "to raise," is exactly equivalent to the French term. So literally does *élever* limit itself to the actual rearing of children, that Littré applies, within brackets, the word *allaiter* as an equivalent. The word education in itself rouses hopes, since by its very derivation it suggests a theory. But, so far as French is concerned, we are disappointed, for we find the depressing note in Littré: "*éducation* is a recent word: formerly one said *nourriture*."

Yet everyone who has had occasion to dip into books on school method is familiar with the endless discussions about the derivation of the word education. The popular, one might almost call it the orthodox, derivation runs: *e*=out of, and *duco*=I lead. From this derivation a whole theory of teaching is sometimes evolved. The young teacher is warned that his main business is to draw out rather than to put in. The pupil is to be told as little as possible, and knowledge is rather to be "elicited from the pupil by skilful questions" than communicated to him. It annoys the writers of such manuals if one points out the existence of a Latin verb *educare* that meets all the needs of derivation, and yet carries with it no more elaborate theory than we can spin out of *élever;* for, among the meanings of this word *educare* is included the usual "rearing of children." Some dictionaries give the meaning of the word as "to bring up a child, physically or mentally." The dictionary certainly does its best to keep the educator humble.

The "*e*=out of" theory is not confined to the professional teachers. It has spread among laymen. We find Edward Burne-Jones writing:

> Education is a pretty enough word if it is taken literally, and intended to mean an influence that leads forth something already in one, but they seldom mean anything so nice as that. By the present way people's faculties are more often stuffed up than drawn out. Induction is rather the word that represents it. People ought to get into the habit of saying, quite in an ordinary tone of voice, "My boys are being inducated at Eton."[1]

There is here more than verbal criticism. We are dealing with what education is and ought to be, rather than with the mere derivation of the word. The school-manual derivation owes its influence to the fact that it is countenanced by a view of education that is sound. Burne-Jones emphasizes the

[1] *Memorials of Edward Burne-Jones*, Vol. II, p. 324 (year quoted 1897).

distinction between merely supplying information on the one hand, and on the other using knowledge in such a way as to modify character. The complaint really is that boys are being taught but not educated. The word *induction* is used to bring out the fact that in our practical systems teaching is not distinguished from education. These two are indeed very generally treated as if they were interchangeable terms. This fact requires some explanation, since teaching is after all only a part of education. Sometimes, indeed, there is admitted to be an opposition between the two processes, as in those cases in which a particular method of teaching is described as uneducational. The meaning here is obviously that the method in question does not produce good results on the nature of the person taught. We have seen that all a teacher's methods must have an educational effect, just as have all the other elements of the pupil's experience. Education includes teaching as the greater includes the less, though to judge by popular speech one would almost be led to suppose that it was the other way about. A well-educated man is usually understood to be a well-informed man, a man of wide knowledge. It is in this sense that Aristotle is often called the best educated man the world has even seen. On any other view the compliment that is obviously meant for Aristotle himself would have to be carried back to Aristotle's teacher, Plato; for the teacher is obviously responsible for the education of the pupil in the sense of a process that modifies the nature of the pupil. In this sense Alexander is more entitled to the epithet than is his master, though in respect of mere knowledge the pupil never even approached the master's level. Yet Hegel, speaking of Alexander tells us:

> Aristotle left this grand nature as untrammeled as it was before his instruction; but impressed upon it a deep perception of what the true is, and formed the spirit which nature had so richly endowed, to a plastic being, rolling freely like an orb through its circumambient aether.[1]

Education has for its aim a modification of the nature of the person being educated, and not merely the supply of a certain amount of knowledge.

The knowledge-mongering theory is based upon an exaggeration of a principle that is in itself sound. Nurture forms as essential a part of true education as does what is usually called training. Instruction is indeed of fundamental importance in education, but it cannot stand alone. Knowledge must be used as a means toward an end. It is true that there are certain elements of knowledge that may be said to be of use in themselves, and apart from any effect they may have upon the character. Subjects that are merely ancillary to other subjects are of this nature, subjects that Lord Avebury would call "knife-and-fork studies." Even here, however, it is doubtful whether the distinction will really hold, for what is a knife-and-fork study at a given stage may well have been a culture study at an earlier stage.

In fact we cannot reasonably separate knowledge from the knowing person. The very grammatical function of the verb "to teach" with its double accusa-

[1] *Philosophy of History*, Part II, Sec. 2.

tive, drives us to the conclusion that the process becomes meaningless if we try to deal with the subject taught apart from the person to whom it is taught. Whether he will or not, the "mere" teacher is to this extent an educator. How far he is a genuine educator, that is, how far he deliberately seeks to modify the pupil's character in a given direction, is another question.

So far as the general public is interested in the matter at all it is inclined to admit the teacher's claim to rank as an educator. It is only too willing to hold him responsible for the conduct of his pupils after they leave school. He is taken to task for producing the Hooligan and the Apache, or at the very least for not preventing their production. Probably too much is expected of the school. The public has an almost Red-Indian belief in the marvels that can be worked there. We have Max Müller's authority for the statement that the terms used by the red men to signify a school may be literally rendered "a stopping place where sorcery is practiced."

Every good schoolman will prefer that too much rather than too little should be expected from the school, and will welcome the growing reaction against the view that it is a mere knowledge shop. Still he knows that teaching and education are not synonymous and should be anxious to learn why they are so readily accepted as such by the public. The two processes resemble each other inasmuch as both are bipolar, they have each an active and a passive member: there is the teacher and the person taught, the educator and the person educated. Between the active and the passive persons in the two processes there is obviously a continuous interaction. In each process there is a pair of persons. As a consequence there is need for a pair of correlative words in each case. In the one process teacher is the name given to the active person, and corresponding to this in ordinary speech we have the term pupil. In the case of education we have the active side represented by the word educator, but when we seek for the corresponding term for the passive side we find that it is lacking. The man who writes on education, as a wider term than mere teaching, has to fall back on such expressions as "the person to be educated," or "the person being educated." The interesting thing is that most of those who write in English on this subject do not seem to feel the need of a correlate for educator. They appear to be quite content to make the word pupil serve their purpose. At the early stages of educational theory it may have been pardonable to make one term meet the needs of both teaching and education. But it is remarkable that as theory has developed this double work should have been for so long exacted from a single term.

It has to be admitted that this lack of an essential word has not gone entirely unobserved: for on referring to Dr. Murray's *Historical Dictionary of the English Language*, it will be found that the word "educatee" does occur, with the explanation, "one who is subjected to the process of education." But it is accompanied by a note in italics that describes it as a "nonce word," a word, that is, that has not justified its claim to a place in the language, but has been used by some writers for the nonce, to meet a passing need. Nothing

could better illustrate the lateness of the emergence of an adequate educational theory than this long continued satisfaction with an inaccurate correlate to the word educator. It is only occasionally and in unimportant connections that the need of the correlative has been felt. In the two examples of the use of the word "educatee" supplied in the dictionary by Dr. Murray, one cannot help finding a somewhat contemptuous connotation. Like a triple rhyme, words ending in "ee" suggest a flippant context. There is in such words usually a lack of philological justification.

In drawing up a syllabus of lectures on education there must be frequent references to the passive partner in the process, and since education is not limited to the case of pupils or students there is an imperative need of a proper term. In searching for a better word to express what is meant, we find that we can appeal to the respectable authority of the Latin grammar, where we discover just the form we desire in that ending in *—ndus*. The *educand* would literally mean the person that ought to be educated, or that is suitable for, or worthy of, education. Objectionable as are neologisms, it may be permitted to recommend the use of a term that so accurately represents the idea intended to be conveyed, an idea for which we have at present no equivalent in English. Besides, the word, after all, is only a revival. It was never current, but it was used by some writers. Thus in William Petty's *Advice*, dated 1648, we find the words "that the educands be taught to observe and remember all sensible Objects and Actions." The word was used in a serious way, unlike *educatee*, so that it had its chance, like any other word, of establishing its place in the language. That it did not succeed in making good its claim to a permanent place can be explained only on the assumption that the study of education was not sufficiently developed to make the term essential. No one can write much at present on the subject of education without feeling hampered through the lack of a word to express exactly what is covered by Petty's term. To use the word pupil as a correlative to both teaching and educating is to beg a whole series of questions that it is the business of the lecturer or writer to answer.

It is true that there is danger of allowing a fallacy to creep into our writing through an insistence upon the correlation between the educator and the educand. While the educator plays the active part and the educand the passive in the process of education, as such, we must not let the passive form of the word *educand* blind us to the fact that in education the person to be educated must necessarily bestir himself. One of the most pestilent heresies in education is this very notion of the passivity of the educand. He is certainly the object upon which the educator acts: very frequently he is entirely in the power of the educator: under certain circumstances he can be none other than the educator determines. But it does not at all follow that he is, as a human being, passive. It is of the very essence of successful education that the educand should be kept in a state of activity. To save the educand from spending either time or trouble over his work is no part of the educator's plan—unless

indeed the time and trouble would be spent uneducationally. A great part of the educator's work is to stir up the necessary mental and physical activity on the part of the educand. So far as the educand is a living developing being he is active in the process of education, though in the regulation of the process he plays the passive part. In the educational process, as educational process, the educator is active, though he appears to be doing little. The cavalry drill sergeant who stands still in the middle of the riding-school, and uses only his tongue, is educationally active, while the recruits who career violently round the ring are educationally passive.

Even in the regulation of the educational process the educand may take a share, in so far as he enters upon what is known as self-education. The pupil who prepares with scrupulous exactness the work prescribed by his teacher is no doubt being educated; he is an educand and nothing more. But at a later stage he probably realizes the need of making himself better than he is, either in skill or in knowledge, to say nothing of morals. As soon as he seeks to make himself different from what he is at present, he takes himself in hand, and to that extent ceases to be an educand and becomes an educator. A good system of education is marked by just this transition step by step from educand to educator. At the earlier stages the educator does practically all the work as educator; but as the process advances the educand takes a hand, and by and by comes to such a mastery over himself that he is practically his own educator. This does not mean that at the higher stages there is no need of an educator, but that at those stages the teaching element is more prominent than the educational. It is not so much that the educand is educated by his teacher as that he educates himself by reaction upon his teacher. The professional teacher becomes a means by which the educand completes his own education. The whole process of education may be said to be one in which the educand becomes gradually transformed into his own educator. At the earliest stage the educand is literally educand and nothing more. By and by he begins to take a share in his own education and the educator element increases at the expense of the educand element, till at last the stage is reached at which the educand element practically disappears. Ambitious people seek to strengthen their position by making themselves indispensable. The true professional educator must seek for success by quite another route. Like the good doctor, the good educator proves his worth by making himself unnecessary. The true educator is never satisfied with his work on any given educand till his occupation, so far as that educand is concerned, is gone.

Since in the scientific study of education the term educand or some equivalent is necessary, we must seek to discover why the need for it has been so slightly felt. The explanation is full of encouragement for the teacher who does not shirk responsibility. It is to be found in the fact that knowledge after all is the chief educational organon. Few people will find much to object to in the widely accepted definition of education: "The science of human development so far as that development is deliberately modified by the impart-

ing of knowledge." This definition embodies, though it can hardly be said to be founded upon, the principle that underlies Herbart's theory of moral education. If the basis of Herbart's theory could be expressed in one sentence, that sentence would run: "The will has its root in the circle of thought." Our activity depends upon our mental content. This is not a mere restatement of the old Socratic, "Virtue is knowledge." Herbart is not content with a mere knowledge of right and wrong. He claims that all knowledge has an educational significance. The whole circle of thought has an effect in determining the nature of the soul's volitions. The soul must be nurtured as well as trained. Herbart would have welcomed the old French equivalent for education, *nourriture*. The soul that is poorly supplied with ideas, even if the ideas are good, cannot rise to what Herbart would call virtue. This is what he means when he says "stupid people cannot be virtuous"—a remarkable statement in the ears of the plain man who is inclined to believe that this is the one thing that stupid people can be. Herbart's word, *stumpfsinnig*, rendered stupid cannot fairly be translated ignorant, though it implies ignorance. For your dull-sensed person finds it difficult to acquire knowledge and so must always remain ignorant in comparison with his more favored fellows.

The fact that we have been so long content to let the word pupil do the double work of pupil and educand is an unconscious, and therefore all the more reliable, proof that people in general agree with Herbart that in imparting knowledge we are modifying character. Though for technical analysis both terms are necessary, we have to admit that the pupil is necessarily an educand. This equivalence sweeps away for ever the justification for the attitude of that class of teachers—fortunately a very small class—who maintain that they are teachers only and decline to be held responsible for anything but the communication of knowledge or skill. The teacher is not a mere knowledge-monger, but, whether he will or no, a man-maker; the school is not a knowledge-store but a man-factory, a veritable *officina hominum*.

DEPARTMENT OF SUPERINTENDENCE

CHICAGO MEETING, 1907

SECRETARY'S MINUTES

FIRST DAY

MORNING SESSION—TUESDAY, FEBRUARY 26, 1907

The meeting of the Department of Superintendence of the National Educational Association was called to order in Music Hall, Fine Arts Building, Chicago, Ill., at 9:30 A.M., by President W. W. Stetson, of Maine.

The invocation was offered by Rev. R. A. White, of Chicago.

Mayor Dunne, who was to have delivered one of the addresses of welcome, was unable to be present, and E. G. Cooley, superintendent of city schools of Chicago, on behalf of the city and the schools, welcomed the members of the department to the city.

A response to the address of welcome was made by Hon. Nathan C. Schaeffer, president of the National Educational Association.

President Stetson then introduced J. B. Aswell, state superintendent of public instruction, Baton Rouge, La., who read a paper on the topic, "Is the Child the Ward of the Nation?" The second topic, "What Should the Public Do for the Care and Training of Children before They Are Admitted to the Public Schools?" was discussed by Miss Ada Van Stone Harris, assistant superintendent of schools, Rochester, N. Y.

The two papers were then discussed by Mrs. Ella F. Young, principal of the Chicago Normal School; Miss Amalie Hofer, Chicago Commons, Ill.; and S. Y. Gillan, Editor of *The Western Teacher*, Milwaukee, Wis.

The third address of the session was delivered by James H. Eckels, president of the Commercial National Bank, Chicago, Ill., on "The Financial Value of Education."

The department adjourned until 2:30 P. M.

AFTERNOON SESSION

The afternoon session of the department was called to order by President Stetson, at 2:30 o'clock.

The first paper was read by Lawton B. Evans, superintendent of schools, of Augusta, Ga., on the subject, "Should the School Attempt the Circle of the Child's Training, or Address Itself to the School Segment?"

The second topic, "Admitting That Our Schools Are Defective, Who Is Responsible for the Present Conditions?" was discussed by Payson Smith, superintendent of schools of Auburn, Me.

The third topic of the afternoon, "Has the Product of Our Schools Reasonable Fitness in Scholarship and Personal Qualities for Citizenship?" was discussed by Samuel Hamilton, superintendent of schools for Allegheny County, Braddock, Pa.

A general discussion followed.

Mr. E. O. Vaile, of Oak Park, Ill., being recognized by the chair, made the following report:

It has been just ten years since this Department, at its Indianapolis meeting, first definitely committed itself to the support and use of a very brief step in simplified spelling. At that meeting a resolution was passed

directing the secretary of the Association, in printing the proceedings of the Department, to use such amended spellings regularly, until instructed otherwise by vote, as might be prescribed by a committee consisting of Dr. W. T. Harris, Superintendent F. Louis Soldan, and Superintendent T. M. Balliet. This committee designated the twelve words which by subsequent vote by the board of Directors have since been used in all the printed matter issued by the N. E. A. All will admit that the initial step has borne fruit. It gave standing and impetus to the spelling reform idea which were sorely needed. For the past ten years this Department has been the arena in which the contest for rational spelling has been waged. Echoes from the debates on the platform and on this floor have reached the outside world every year, and have served to convince it as nothing else has or could, that in this reform there is sound sense.

Eight years ago, I believe, in this very place, occurred the memorable debate as to whether or not the Department should petition the board of directors to appoint a board of 21 prominent public men to head the movement, with Dr. Wm. R. Harper as chairman—all of them being specifically named in the resolution with their consent—and to give it annually a considerable sum of money for promotion work. Many of you remember the excitement of that session. Its like has never occurred on any other occasion in the history of the department. Tho the proposition lacked seven votes, I believe, of carrying, the uniform courtesy and good humor which prevailed thruout, the cogent arguments which remained unanswered, and the fact that those 21 men had enough interest in and respect for spelling reform to allow themselves to be nominated in the proposed petition—this produced a strong impression in favor of the general cause and even in favor of the appropriation. Its practical effect was as intended, to fix in the mind of our educators, and as far as possible in the mind of the public, a definite process and policy by which this reform would be lifted from its estate of contempt and ridicule and could be pushed and kept within moderate lines, safe from radicals, and zealots. The plan of organized effort proposed and emphasized in that debate led directly to the establishment of the present Simplified Spelling Board, and eight of the proposed members nominated at that time have seats today on the present board.

The next salient move was at the Atlanta meeting where a decisive victory of nearly 3 to 1 was scored in favor of petitioning the directors to appoint the board and to appropriate money for its use. The matter was duly laid before the board of directors who according to the rule referred it to the Council of Education where dilatory if not unfair tactics in regard to it prevailed for two or three years. In the meantime, thru representations originating from the same source that had shaped the various propositions which year by year had been brought before this department, Mr. Andrew Carnegie decided to finance a trial of the "Board" plan of a simplified-spelling propaganda, and the present Simplified Spelling Board, on his invitation and promise to furnish funds, came into being a year ago, and has been at work since.

Ten years is a long time "to l abor and to wait," to labor and to wait so strenuously. But the fruit is coming, slowly to be sure, but with certainty I believe. While I regret that the N. E. A. did not take what seems to me its logical and natural step as petitioned by the superintendents, it is of the greatest credit to the educators that it has done what it has, that it has fairly and fully faced this question, that it has focused public attention upon it, that by discussion it has clarified the spelling reform propositions, and by its own example and precept has shown how progress can be made. I believe the majority of you appreciate and commend the courage and the progressive spirit of the millionaire philanthropist who, by his timely and effective support of this reform, has added a unique epitaph on his monument for posterity to read.

Before submitting my resolutions it seems fitting that I should make a brief statement of the present situation as reported by the secretary of the Simplified Spelling Board:

More than 14,000 persons have signed the promise to use the simpler spellings recommended by the board, among them 4,000 educators—superintendents of schools, professors in colleges and universities, presidents of colleges and universities, etc.

Simplified spellings have been adopted or authorized in many school systems, normal schools, colleges, universities, and libraries, and recommended by state and local educational associations.

Not only have the philologists and linguistic scholars generally reaffirmed their urgent approval of simplified spelling, but a large number of scientists have done the same.

President Roosevelt has adopted simplified spelling in his personal and official correspondence, and in further testimony of his approval of the principle and the practice he has accepted membership in the Simplified Spelling Board. The principal circulars of the board have been reprinted by the government and circulated in government offices everywhere.

Altho no formal canvass has yet been undertaken abroad, inquiries come daily from Great Britain, Canada, and Australia, and from every country where English is spoken or taught. In England and Scotland especially there is great interest. Six eminent scholars in Great Britain and two in Canada are members of the American board and will assist in the plans for an international effort to promote the reform.

About 150 periodicals, many of national circulation, are now using simplified spellings, and more have agreed to join a general league of periodicals in an advanced step.

More than 2,000 business men, firms, and corporations are using the simpler spellings in their correspondence and advertisements.

I submit, Mr. President, that this is a pretty good record. It shows that every man and woman who believes in this movement may now lend a hand with safety and with assurance that his influence will count. Whether the time has come for an advance step we all leave, of course, for the Simplified Spelling Board to decide. But I desire to submit two resolutions, to be voted on separately, which for its own sake as well as for the sake of the cause, I hope the Department will adopt. These are the two resolutions:

Resolved: (1) That the Department of Superintendence, N. E. A., hereby expresses its gratification at the creation and the policy of the Simplified Spelling Board, and at President Roosevelt's active and conspicuous support of the simplified spelling movement.

Resolved: (2) That it is the judgment of this Department that all school authorities should permit and encourage the use of the simpler spellings, recommended by the Simplified Spelling Board, by all teachers and pupils who feel inclined to use them.

I move the adoption of the first resolution.

John MacDonald, Topeka, Kan., moved that the resolution be referred to the committee on Resolutions.

J. D. Simpkins, Newark, Ohio, opposed the motion of Mr. MacDonald, on the ground that it throttled free discussion.

The motion to refer to the Committee on Resolutions was then put and lost.

The vote then recurred on the original motion, which was carried.

Mr. Vaile then moved the adoption of the second resolution. Arthur Powell, Middleton, Ohio, moved that the words "and encourage," be stricken out of the resolution.

This amendment was accepted by Mr. Vaile and his second, and with this modification the resolution was put and lost.

A reconsideration of the vote on the first resolution was then called for. This was granted, and on a standing vote, the first resolution was again carried.

President Stetson then announced the following committees:

COMMITTEE ON NOMINATIONS

W. H. Maxwell, of New York
E. G. Cooley, of Illinois
W. C. Bates, of Massachusetts
J. C. Blanton, of South Carolina
A. C. Nelson, of Utah

COMMITTEE ON RESOLUTIONS

J. H. Phillips, of Alabama
Jeremiah Burke, of Massachusetts
J. H. Hinemon, of Arkansas
W. N. Clifford, of Iowa
E. C. Moore, of California

The department then adjourned until 8:15 P. M.

EVENING SESSION

The evening session was called to order at 8:15 by President W. W. Stetson. The first number on the program was a selection by the Imperial Quartette of Chicago.

The address of the evening was delivered by Chancellor E. Benjamin Andrews, of the University of Nebraska, on the subject, "The Problems of Greater America."

Adjournment was taken to 9:30 A. M., Wednesday, February 27.

SECOND DAY

MORNING SESSION.—WEDNESDAY, FEBRUARY 27, 1907

The morning session of the Department was called to order by President W. W. Stetson, at 9:30 o'clock.

An invocation was offered by Dr. Nathan C. Schaeffer, of Pennsylvania.

The following communication from the Science Department of the University of Chicago was read, and, on motion, referred to the Committee on Resolutions:

THE UNIVERSITY OF CHICAGO
RYERSON PHYSICAL LABORATORY

CHICAGO, February 25, 1907.

W. W. Stetson, Esq., President of the Department of Superintendence:

MY DEAR SIR: It has been suggested to me that possibly the Department of Superintendence might like to co-operate with a number of other organizations in the country in a very interesting piece of educational work. This work is an extensive investigation into the shortcomings of the work in physics in the schools, and an attempt to suggest methods by which this subject may be made more valuable to the students. The work was begun last year by the North Central Association of Colleges and Preparatory Schools, acting in co-operation with the Central Association of Science and Mathematics Teachers. These two associations have invited others to co-operate in the work, and fifteen have responded by appointing committees to take part in it. Among these associations are

the American Physical Society, the New England Association of Colleges and Preparatory Schools, the Association of Colleges and Preparatory Schools of the Southern States, The New York State Science Teachers' Association, etc. The committees appointed by these seventeen associations have organized into one large committee, with fifty-seven members, and are engaged in framing a new set of requirements for the unit in physics, and in drawing up a set of suggestions to help the teacher in making the subject more truly educative.

The fifty-seven members of the committee are all physics teachers excepting four, who are specialists in education, namely, Professors P. H. Hanus, John Dewey, G. H. Mead, and M. V. O'Shea. The work is being carried on by means of printed circulars and letters, samples of which are inclosed.

In the course of the investigation there have several times arisen points of administrative policy, which would be of great interest to your body, and in the solution of which we need your assistance. One such point now under discussion is that of the certification of physics teachers, the admission to college by certificate, and the accrediting of secondary schools. As chairman of the large committee or commission, I take this liberty of writing to you to suggest that we would be much pleased to have the Department of Superintendence appoint a committee of three or five members to help us in this work. We are finding that the investigation cannot be confined to the subject of physics alone, but is bound to include before it is finished the other sciences. Hence the work is bound to be one of considerable scope and importance before it is finished.

During the past year, I have had some light correspondence concerning this work with your second vice-president, Mr. R. J. Tighe, with Mr. E. E. Brown, the national commissioner, with Mr. J. H. Van Sickle, and others, to whom you could refer for further information. I also expect to attend most of the meetings, and would be glad to furnish additional information. I hope it is not too late to bring this matter before the section for action at this meeting. Thanking you for any attention you may be willing to give to this, I am,

Yours respectfully,
(Signed) C. R. MANN.

A paper on the first topic, "What Fraction of the Pupils in Our Secondary Schools Cannot Derive Compensating Advantages Therefrom?" was read by W. J. S. Bryan, principal of the Central High School, St. Louis, Mo.

The theme of the second topic was "What Has Been the Effect on the Pupil of the Multiplication of Subjects of Study and of Refinement of Methods?" The subject was discussed by Commissioner E. A. Jones, Columbus, Ohio.

The third paper of the morning, on "Order of Development and Studies Suited to Each Stage," was read by W. E. Chancellor, superintendent of schools, Washington, D. C.

Discussion followed by J. W. Crabtree, president of State Normal School, Peru, Neb., and Francis G. Blair, state superintendent of public instruction, Springfield, Ill.

At this point Dr. W. T. Harris, former United States Commissioner of Education, was invited to the rostrum and given an ovation of enthusiastic applause by the Department. He spoke briefly on the topics under discussion.

BUSINESS SESSION

President N. C. Schaeffer, of the National Educational Association, then addressed the Department on the subject of the fiftieth anniversary meeting of the Association, explaining the reasons for holding the meetings in Los Angeles instead of in Philadelphia. Mr. E. C. Moore, superintendent of city schools, of Los Angeles, was then introduced, and extended a cordial welcome to the superintendents and teachers to the meeting at Los Angeles.

Superintendent W. H. Maxwell, of New York, chairman of the Committee on Nominations, then read the following recommendation of officers for the ensuing year:—

President—Frank B. Cooper, Seattle, Washington.
First Vice-President—Stratton D. Brooks, Boston, Massachusetts.
Second Vice-President—Ella C. Sullivan, Chicago, Ill.
Secretary—George B. Cook, Hot Springs, Arkansas.

On motion, the report of the committee was accepted, and the nominees declared elected.

The question of the place of meeting for the year 1908 was then taken up, and Superintendent W. E. Chancellor, of Washington, D. C., extended an invitation to the Department to meet in that city. Superintendent E. G. Cooley, of Chicago, invited the Department to meet again in Chicago.

Superintendent M. A. Whitney, Elgin, Illinois, moved that the Department accept Superintendent Chancellor's invitation to meet in Washington. Superintendent C. G. Pearse, of Milwaukee, seconded the motion, and, on vote, the invitation to meet in Washington in 1908 was unanimously accepted.

The morning session closed with a song from the Imperial Quartette, commemorative of the birthday of Henry W. Longfellow.

AFTERNOON SESSION

ROUND-TABLE SESSIONS

The following programs were carried out during the afternoon from 2:30 to 6:00 o'clock P. M.

A. ROUND TABLE, STATE AND COUNTY SUPERINTENDENTS

Leader—Thomas C. Miller, state superintendent of free schools, Charleston, W. Va

Topic—"The Country School and Its Betterment."

(*a*) How to Improve Rural Schools: Miss Katherine L. Craig, state superintendent of public instruction, Denver, Colo.

(*b*) Rural School Supervision: J. W. Olsen, state superintendent of public instruction, St. Paul, Minn.; Discussion led by R. B. Cousins, state superintendent of public instruction, Austin, Texas; C. F. Baxter, State Superintendent of public instruction, of New Jersey.

(*c*) A Course of Study for District Schools: M. Bates Stephens, state superintendent of public education, Annapolis, Md.

(*d*) Manual Training in Rural Schools: Arthur H. Chamberlain, dean and professor of education, Throop Polytechnic Institute, Pasadena, Cal.

(*e*) The Consolidated School and the New Agriculture: O. J. Kern, county superintendent of schools, Rockford, Ill. Discussion led by E. E. Balcomb, department of agriculture and physiography, Southwestern State Normal School, Weatherford, Okla.; Cap E. Miller, county superintendent of schools, Sigourney, Iowa.

(*f*) The Value of Educational Campaigns: J. L. McBrien, state superintendent of public instruction, Lincoln, Nebraska. Discussion led by Mason S. Stone, superintendent of education for Vermont.

(*g*) School Board Convention: C. P. Cary, state superintendent of public instruction, Madison, Wis. Discussion led by Mason S. Stone, state superintendent of education, Montpelier, Vt.

B. ROUND TABLE, CITY SUPERINTENDENTS OF MEDIUM AND SMALLER CITIES

Leader—George B. Cook, superintendent of schools, Hot Springs, Ark.

(*a*) The Advantages and Disadvantages of Changing the Elementary Course from Eight to Seven Years and of Making the High-School Course Five Years: James M. Greenwood, superintendent of schools, Kansas City, Mo. Discussion led by J. H. Phillips, superintendent of schools, Birmingham, Ala.; R. B. D. Simons, superintendent of schools, Hannibal, Mo.

(*b*) What Should the Smaller Cities Attempt for the Education of Defective Children—Physical, Mental, and Moral? John Dietrich, superintendent of schools, Colorado Springs, Colo. Discussion led by Geo. A. Franklin, superintendent of schools, Faribault, Minn.; J. W. Kuykendall, superintendent of schools, Fort Smith, Ark.

(*c*) The Relation of the Physical Nature of the Child to His Mental and Moral Development: George W. Reid, superintendent of schools, Monroe, La.; John A. Stewart, superintendent of schools, Bay City, Mich.

(*d*) An Overcrowded Curriculum: G. V. Buchanan, superintendent of schools, Sedalia, Mo.

C. ROUND TABLE, CITY SUPERINTENDENTS OF LARGER CITIES

Leader—W. H. Elson superintendent of Schools, Cleveland, Ohio.

Topic—"The Need for Special Classes."

(*a*) Is There Need for Industrial Schools for Pupils Unlikely to Complete the Regular Elementary School Course and Go on to the High School? Should It Provide Trade Instruction? Samuel P. Orth, member of board of education, Cleveland, Ohio; L. D. Harvey, superintendent of schools, Menomonie, Wis.; F. B. Dyer, superintendent of schools, Cincinnati, Ohio. Discussion led by Henry P. Emerson, superintendent of city schools, Buffalo, N. Y.

(*b*) At What Should the Ungraded Room Aim and for What Class of Pupils Should It Provide? C. R. Frazier, superintendent of schools, Winona, Minn. Discussion led by W. L. Stephens, superintendent of schools, Lincoln, Neb.; C. F. Carroll, superintendent of schools, Rochester, N. Y.; George A. Chamberlain, principal East Division High School, Milwaukee, Wis.

(*c*) The Separation of Physically and Mentally Defective Children from the Regular School: C. G. Pearse, superintendent of schools, Milwaukee, Wis.

(*d*) The Separation of the Insubordinate and Incorrigible Children from the Regular School: W. C. Martindale, superintendent of schools, Detroit, Mich.; W. N. Clifford, superintendent of schools, Council Bluffs, Iowa.

EVENING SESSION

The evening session of the department was called to order at 8:15 by President W. W. Stetson.

Music was furnished by the Imperial Quartette.

The address of the evening was delivered by Rabbi Emil G. Hirsch, of Chicago, on the subject, "Many or One."

THIRD DAY

MORNING SESSION.—THURSDAY, FEBRUARY 28

The session was called to order by President Stetson at 9:30 o'clock.

The invocation was offered by Rev. Joseph Stoltz of Chicago.

The first topic of the morning—"Should the School Furnish Better Training for the Non-average Child?"—was discussed by John R. Kirk, president of the State Normal School, Kirksville, Mo.

The assigned speaker on the second topic—Professor P. P. Claxton, of the University of Tennessee—was unable to be present, and his place was taken by Superintendent J. M. Greenwood, of Kansas City. The subject was "Are We Experimenting Too Much and Devoting Too Little Time and Effort to the Fundamentals?"

The third topic of the morning—"What Are the Essentials in Subjects in the Elementary-School Course?"—was presented by Elmer E. Brown, United States Commissioner of Education, Washington, D. C.

President N. C. Schaeffer then read an invitation to attend the International Peace Congress, New York, April 14–17.

The papers of the morning were discussed by Chas. H. Keyes, supervisor of South District Schools, Hartford, Conn.; C. F. Carroll, superintendent of schools, Rochester, N. Y.; Chas. A. McMurry, acting president State Normal School, California, Pa.; Mrs. Grace Reed, principal of John B. Drake School, Chicago, Ill.; F. Louis Soldan, superintendent of instruction, St. Louis, Mo.; Geo. E. Gay, superintendent of schools, Haverhill, Mass.; F. D. Boynton, superintendent of schools, Ithaca, N. Y. James H. Van Sickle, superintendent of schools, Baltimore, Md., then presented a report of the Committee on History, of which he was chairman.

The morning session closed with music by William Wade Hinshaw, of Chicago.

AFTERNOON SESSION

The department was called to order at 2:30 P. M. by President Stetson.

The first paper of the afternoon was read by Superintendent A. V. Storm, Iowa City Iowa, on the subject "Minimum Qualifications for Teachers of the Elementary School."

The second topic, "Minimum Qualifications for the Teacher in the Secondary School," was discussed by Henry Suzzallo, assistant professor of education, Leland Stanford Jr. University.

The third topic—"The Growth of the Teacher; How Continued?"—was presented by W. F. Gordy, superintendent of schools, Springfield, Mass.

The report of the Committee on Resolutions was read by Superintendent J. H. Phillips, Birmingham, Ala., and on motion the resolutions were adopted as the sentiment of the department.

REPORT OF COMMITTEE ON RESOLUTIONS

Resolved: (1) That the thanks of this Department are due and are hereby extended to Mr. C. M. Treat, Secretary of the Convention Bureau Committee of the Chicago Commercial Association for the excellent accommodations provided for its meetings, and to Superintendent E. G. Cooley and other Chicago educational officials for valuable assistance rendered.

Resolved: (2) That the thanks of this Department are hereby extended to President W. W. Stetson for the excellence in the preparation and the rare felicity in the presentation of the splendid program which has given character and distinction to this meeting of the Department.

Resolved: (3) That we urge upon all law-making bodies and upon all boards of education the necessity of making every effort possible to remove from all children the temptation to form the habit of cigarette smoking; and to use all the means in their power to discourage a habit which lowers character and undermines the foundations of citizenship.

Resolved: (4) That a Committee of Five be appointed by the President of this department to co-operate with similar committees of other scientific associations in the discussion of the problem of science work in the secondary schools of the United States.

Resolved: (5) That we recognize the great significance of the movement to substitute arbitration for war in the settlement of international disputes, and recommend the observance of the 18th day of May of each year by the schools of the United States in commemoration of the conference which led to the establishment of the Peace Tribunal at The Hague.

Resolved: (6) That we reaffirm our belief that the paramount educational question of the hour is the employment and retention of a sufficient number of well-qualified teachers to fill all of our public schools, and that this Department pledges itself to use its best endeavors to secure such compensation as will enable teachers to prepare themselves properly for their work and to justify them in remaining permanently in the profession of teaching.

By the Committee,
J. H. PHILLIPS, *Chairman*
JEREMIAH BURKE
J. H. HINEMON
W. N. CLIFFORD
E. C. MOORE

President W. W. Stetson then introduced and welcomed the incoming president of the Department, Superintendent Frank B. Cooper, of Seattle, Wash.

Following a felicitous response by Superintendent Cooper, the department adjourned to meet in Washington in 1908.

J. H. HARRIS,
Secretary.

The following were appointed by President Stetson as a Committee on Science Instruction in Secondary Schools, to co-operate with various other committees representing the Associations named in the letter of Professor C. R. Mann, of the University of Chicago, and authorized by Resolution No 4, of the report of the Committee on Resolutions, viz:

CARROLL G. PEARSE, superintendent of City Schools, Milwaukee, Wis.
MASON S. STONE, state superintendent of Education, Montpelier, Vt.
JAMES A. BARR, superintendent of City Schools, Stockton, Cal.
FRANK D. BOYNTON, superintendent of City Schools, Ithaca, N. Y.
W. J. S. BRYAN, principal Central High School, St. Louis, Mo.

PAPERS AND DISCUSSIONS

IS THE CHILD THE WARD OF THE NATION?

JAMES B. ASWELL, STATE SUPERINTENDENT OF PUBLIC EDUCATION, BATON ROUGE, LA.

The responsibility for the child's birth may rest with the parent as a mere breeding animal, but the responsibility for the child's living must rest with the parent as the socially, morally, politically responsible agency for the enrichment of the child's life, and for giving it its highest individual efficiency. But this parent does and must enter into the community life in which he and the child must live. The community thus becomes vitally interested in the character of the training the parent gives the child, deeply concerned as to the *individual* that is growing into its life; for the community in this century has a right to expect from the child through the parent a high quality of business and social service. The life of the community not only depends upon, but is the expression of, the intelligence and morality of its individual members. The child, in this sense, is the ward of the community.

But the community is an organic part of that larger organization, the state, whose stability and efficiency must depend upon the individual over whose training the community is watching with zealous care. Thus the state in looking to the community and the parent for the material for its life and perpetuity finds its first concern in providing for the education of the child, the citizen to be, that he may vote intelligently, work effectively, live honestly; that he may have vision, courage, character. Thus, the child is the ward of the state, not as an adopted creature, but by his inherent right as the fellow-citizen of every other individual in the state. He has a right to demand such opportunity as will enable him to render, in his own way, the most efficient service, and thus become a valuable asset to the state, worthy of the privilege of citizenship.

A fifteen-year-old boy, charged with stealing a sack of flour, said in court, 'I stole it because the world owes me a living." The state does not owe the child a living, but it owes him a fair chance to earn a living. It owes him infinitely more, the privilege of learning and loving truth which is fundamental in all right educational effort; it owes him an environment which helps him establish for himself definite character-standards.

When the armies of Louis XIV were devastated in Flanders, the monarch exclaimed: "Has God forgotten all that I have done for him?" The state is not responsible to the parent for educating his child because of anything the parent has done, but the state is responsible for the development of the individual for his own sake, the building of complete manhood as a prerequisite of citizenship, whereby the state ultimately profits. It is not the business of the state to force every child's education into one mold, suppressing individual motive, and thus produce a colorless civilization. All legitimate educational

endeavor whose purpose is character building should be encouraged, for when all our educational institutions, public, private, and parochial, are given opportunity for the rendition of their best service, still our educational equipment is pitifully inadequate to the varying demands of the century. Moreover, education in a democracy is not a state drill for the state's defense, irrespective of the amount of the individual profit derived from the drill. The state owes it to itself to provide for the education of the child because of what the child *may become.* It is the business of the state to protect him and aid him as he grows *into* the state, a man—righteous, strong, and free.

The state is the guardian of the child not in the sense of paternalism, but out of self-interest it seeks to develop the thinking, struggling individual who serves to interpret and modify tendencies in the social movement. The free-thinking individual is vital to the life of social progress and indispensable to its growth. "He is the only avenue through which the social temper may flow and emerge in forms new for the weal or woe of the state." A picture or a poem must strike some general sentiment or have so general a meaning that the average man may understand and feel its beauty before it can approach popular appreciation. The state best serves itself when it gives hope to the humblest man, and raises the life-standard of the average man. Society itself is not a thinker, not a doer; it is always moved by individuals who work upon it through other individuals. The individual thinks, feels, and protests against existing conditions, causing others so to do, and thus creates a change in the common mind by which society disintegrates to socialism or finds expression in triumphant democracy.

The reason, therefore, for the need of a common intelligence consecrated to the common good is not far to see. Ignorance is possible in a despotism, but perilous in a democracy. Under our system of government education develops the individual and results in the smooth organization of society. Its purpose is to save both the child and the state. Recognition of this fundamental truth which compels the allegiance of all intelligent people to this sense of unity of purpose will bind forever the interests of the child and the state, and thus assure a greater concern on the part of the state in giving the best education and the fullest opportunity to all its children, regardless of rank or station.

I come from a section where the people love this nation and its institutions; but from a section where the people believe not only in the Jeffersonian principle of state rights, but in the state's duty to its children. They believe that a vote is a dangerous weapon in the hands of an ignorant man, and that the state shirks its duty to its children at its own peril. They believe that the same considerations that justify the existence of the state justify direct state control of the public schools. So firm is this belief in the state's sovereign right to control certain social political organizations that it will not be surrendered to federal authority. There are grave unsettled questions in the country, but four things may be considered settled finally: First, There will never be any social equality between the two races in the South—nor anywhere

else, for that matter; second, Control will remain in the hands of the white race; third, The two races will worship in separate churches; fourth, The two races will be educated in separate schools.

But in addition to the interests of a single class or section, there is the interest of a common country. New Orleans is not interested in the management of Chicago's electric-light plant or in the maintenance and control of Chicago's local police force. These are matters affecting Chicago only. But New Orleans is vitally interested in what is being done in Chicago to prevent the spread of tuberculosis, as is Chicago deeply concerned with the battle that is being waged in New Orleans to make impossible the recurrence of yellow fever. These are matters affecting the nation. The failure of New Orleans or Chicago to educate her children constitutes a national evil which must have a far-reaching and dangerous effect upon the life of the whole people.

New Orleans has many local affairs in which Chicago is not interested; Chicago has private business that is of no concern to New Orleans. But these two cities, as parts of a national being, are vitally interested in the larger national life of each other. In its physical and geographical life, the great valley, on whose borders nestle these cities, illustrates this truth. Up from the South come the vapor-laden winds of the Gulf, carrying refreshing rains to plain and prairie in summer, and capping the Rockies and Alleghanies with snow in winter. Rains and melting snows take up their load of silt and hurry down the mountain side to form the creek and river and finally to form the mighty Mississippi. Could you see that great river at this moment towering between his leveed banks ten feet above our fine plantations, you would see him struggling beneath a load of silt, the choicest of these northern soils, with which he has built the rich plains of the lower Mississippi. Thus our balmy breezes bring you life and freshness and return to us bearing the cream of your soils, and the ceaseless flow of winds keeps up the valley's life.

The illustration proves strikingly true when we pursue it into the industrial life of the people. Your rich fields send us grain and meat; our plantations send you cotton and sugar, and our ships bring for you the fruits of the tropics. Thus the great currents of trade and commerce through this valley minister to the life of the whole people.

The illustration proves sublimely true when pursued into the political and moral life of the people. We of New Orleans *are* interested in the prosperity of your crops because you feed us; you of Chicago *are* interested in the prosperity of our crops because we clothe you. But, because this is true, how great is our mutual concern about the kind of men that are reared! A Louisiana boy sits on the bench of the Supreme Court of Illinois; an Illinois boy wields the gavel in the hall of the national House of Representatives. A Louisiana boy, now governor of his state, a few days ago journeyed to the capital city of Illinois to stand by the grave beneath the blended flags of the two states to pay tribute to the fame and memory of Abraham Lincoln. When Admiral Davis represented this nation so humanely at Kingston a few days ago, we all

felt a national pride, and asked not whence he came—he is a son of the nation. When the papers bear to us the sensational reports of the Thaw trial in New York, we hang our heads in shame. Alas, these, too, are the children of this nation! We ask not whence they came. Chicago! New Orleans! New York! San Francisco! a nation's life depends upon the kind of men you rear!

While the state is charged with the direct responsibility of protecting the individual and guaranteeing to the child a fair start in the world, yet happier and stronger is that state or community whose thought is fixed upon what concerns all the people, the national life and humanity. So, the watchful eye of the nation must be directed to the interests of the child for the ultimate purpose of establishing the highest standard of citizenship. No nation can become great until it becomes homogeneous, and a homogeneous nation cannot result from a heterogeneous public-school system. A homogeneous education in the nation is essential to distinctive national ideals, and ideals are the register of mental, moral, and spiritual attainment. Heterogeneity is the cause of Russian dissolution, while homogeneity is the bulwark of the German nation. It is clear, therefore, that unity of purpose and sympathetic co-operation of forces should be the watchword of our national educational system. The purpose, *personal liberty*, should be the same in all the states, but the method of its accomplishment should be controlled by local conditions and must forever remain vested in state authority. While the child is the ward of the family, the community, and the state, yet the nation in a larger sense bears the responsibility of working within constitutional limitations, through state authority, toward the highest development of the individual as such, for it is through his qualities of mind and heart and his wealth-producing power that the nation grows permanently rich and great. The nation, after all, is a mind-condition and is weak or strong as the common mind is loyal to its ideals and purposes.

The greatest glory of the American home is to develop an individual whose skilful intelligence and intelligent skill enable him to express his God-given powers in *any* direction that life may demand. A group of such homes forms a community which is the very essence of the power that makes possible the existence of government. The state, therefore, is made stronger by the individual community-development that finds expression in a larger and freer life. Moreover, the nation best serves itself when it encourages the individual states to develop in their own way. The germ of growth, the spirit of life, is in the individual. It grows in the home, it inspires the community, it develops the state, and finds its fullest expression in the life of the nation. As long as we recognize the sublime unity in our complex life there can be no permanent conflict of authority, for the right and power of the state and nation in this growing civilization and through an intelligent citizenship, will be respected and upheld.

Whether the national government has been a usurper of authority under the provisions given to regulate commerce among the states or whether the

Constitution has been made flexible to meet the growing demands of the new century, it is not my mission to discuss.

But what has the national government done directly, without usurping state authority, for the children of the republic? It has given a free military education to Lee and Grant and Sherman, and, in fact, with the possible exception of Forrest, to all the generals of the Civil War who made illustrious alike the name and fame of the North and the South. Through its land grants to the common schools it is enabling them to reach the forefront among the nations of the world. It has given through its agricultural and mechanical colleges a body of civil engineers who have made possible the marvelous achievements in railroad building, and through these colleges it has awakened an interest in agriculture that has become the life-blood of the nation's wealth. Through its investigations and research it has opened new fields of activity to its citizens.

What more can the nation do to bear its responsibility in the development of the child? Whether the national government expends money to destroy the boll weevil and the cattle tick, or to prevent the spread of contagious diseases, or to put pure food on the markets of the country, it is merely striving to lift the burden from the individual and enable him to work in his own way under a clear sky. Whether it expends money for agricultural development, or for the study of its birds and fishes, or for its land surveys and improved forestry, or for western irrigation, or for levees in the great valley, it is done to reveal to the individual the wealth of beauty and natural resources that lie at his command. When he becomes wiser and wealthier, the nation profits by the better citizen.

What more? We may proclaim the importance of teaching agriculture in the rural schools, but until the teachers have been equipped for this work, it will not be effective. Note the difference between *lecturing* to children upon "agricultural topics" and *teaching* agriculture to country boys. The greatest good that the Congress of the United States can do at this time for the rural schools is to pass the pending bill giving support and recognition to the training of teachers of agriculture in the state normal schools.

What more? The people demand up-to-date information as to the daily markets of the country, and yet we have been satisfied to receive inadequate information as to the condition and movement of the children of the nation, three years late. The national government has dignified the commissioner of agriculture as a cabinet officer, and through this department large sums of money have been expended for investigation and publicity in model farms and experiment stations; but the Department of Education is merely a bureau whose chief, one of the noblest men of the nation, has received a salary less than that received by the manager of a convict farm in one of the states. This Bureau of Education has been graciously *permitted* to publish a great many out-of-date statistics. Why not make the commissioner of education a cabinet officer and supply him with money for the legitimate expenses of a

respectable department of the national government, and command him to establish experimental or model schools and to investigate and report upon all matters pertaining to the welfare of children and child life? The line of work would be similar to that pursued by the Department of Agriculture, and the Department of Education then would be no less effective for the highest good of the nation. As the one deals with physical nature, so the other would deal with human life; as the one deals with material wealth, so the other would deal with spiritual riches; as the one deals with the means of power, so the other would deal with real greatness.

Thus, the intimate interdependence and reciprocal influence of the physical upon the human, of the material upon the spiritual, of man upon his environment, of the individual upon the community, the state, and the nation bring into clear relief the sublime truth that,

> All are but parts of one stupendous whole,
> Whose body Nature is, and God the soul.

WHAT SHOULD THE PUBLIC DO FOR THE CARE AND TRAINING OF CHILDREN BEFORE THEY ARE ADMITTED TO THE PUBLIC SCHOOL, COUNTING THE KINDERGARTEN AS A PUBLIC SCHOOL?

ADA VAN STONE HARRIS, ASSISTANT SUPERINTENDENT OF SCHOOLS, ROCHESTER, N. Y.

The struggle between socialism and individualism is as old as society. It is one of those wholesome and inevitable battles essential to individual and social health, that can never be settled, but must always result in continually varying compromises.

The basis of compromise must always be the necessities of society. The state must do for the individual what is best for its own perpetuity.

There is an inherited belief, amounting almost to a superstition, that the state's obligation in the nurture and preparation of her future citizens begins when they can first attend school. It is generally believed that to open the doors of a public institution to the children at four or six, and when they are eight to go into their homes and compel them to come out and go to school, is a perfectly safe and proper exercise of governmental power; but that to go into the home either to care for the children or to take them out before they have arrived at this age would be rank socialism.

In a free state the one unvarying essential condition of continued life is a healthy, intelligent, and virtuous citizenship. Whatever intrusion into the sacredness of the individual and family is necessary to secure this is not only justifiable, but is necessary.

In early times among us the family could easily supply the necessary nurture and training until such time as the minds of children required the sort of intellectual culture furnished by the ordinary school.

But times have changed; the urbanizing of population has destroyed these conditions for very large numbers of families. Hence more and more now the state must exert its authority to secure to its people the conditions essential to good citizenship.

Imaginary lines must disappear, and the state must in self-protection take charge of its young whenever families in large numbers fail to meet the demand, whether at the age of six, five, four, or in the cradle.

Hence there are certain positions that are frankly assumed thruout this paper—That education is the primary business of the state; that the child is born immediately into the state as he is into the family; that the concern of the community in the child is as urgent as that of his kin; that the power and duty of the state to train the child into citizenship is coextensive with the needs of each individual child; and that solidity of interests makes the welfare of each the business of the whole.

Those who do not admit the proposition of democracy would doubtless dispute its corollary of free and compulsory education, with all its implications. But in the confidence that my assumptions are those of a majority at least of this audience, I have felt that it would be a waste of time to discuss principles on which we are agreed and have laid the stress of this paper on the practical application of these principles.

I have further limited the paper to a discussion of those methods suited to actual present-day conditions.

To discuss upon what spheres of action the state should enter in a properly constituted community is one thing; to face our incoherent, struggling, abnormal social organization as it affects the child and to discuss what must be done here and now under the present conditions is quite another.

The present discussion is sketched on the background of crowded tenements, child and mother labor, alien populations, poverty, ignorance, disease, intemperance and unchastity, which conspire to form the terribly dwarfing and deforming environment of millions of children in this land of liberty, in the year of our Lord 1907.

What the ideal home in an ideal state ought to do for the normal child is a theme upon which angels might delight to write. Meanwhile as we hew our way thru the "dark forest of this tangled present," let us look facts squarely in the face and see what must be done in the broader activities of state and community to give each child that square deal which is his right.

Permit me then very briefly to discuss some of the things that should be done for the child by the public before he is admitted to the public schools.

First, by carefully drawn and drastic legislation the housing of the people in our great and growing cities should be *radically bettered.*

Visit the ghetto of the overcrowded East Side, New York. The procession along the highway reveals not only the apparently prosperous business men, but the immigrant fresh from the foreign shore, ignorant of our language and customs. Here we see the lame and the lazy, the shiftless ne'er-do-wells, and

the unfortunate generally, living in cellars and crowded tenements; entire families in one or two rooms, among most unwholesome surroundings, the families, both of whose parents or whose sole supporting members are compelled to go out during the day, leaving the children without proper care. As the tenement-house problem stands today, in most of our larger cities the occupants suffer serious handicaps in their struggle for existence and a place among men. It is vain to attempt to educate children devitalized in these crowded, dark, unsanitary tenements. Room to play in, air to breathe, must be secured to the children of the nation that would not invite its own decay.

It is true that much has already been done by philanthropic organizations, and especially by the city, thru the oversight of tenements and providing parks and playgrounds. But vastly more is needed.

The way to secure these primitive rights is for our legislators to find out; the force that sets them on the path of constructive legislation is ours to create.

Unless government compels the owners of tenement houses to keep them in good sanitary condition, to provide air, light, water, toilet accommodations, that are adequate and decent, the unfortunate tenants will go without them.

Unless government keeps the streets of these districts clean, the children will play in the filth, for the street is their principal playground; and unless government segregates those affected with contagious diseases, they will stay in the same rooms and the same beds with the well children, and spread the contagion. But government must do more than this. It must compete with ignorance, weakness, indifference, superstition, inherited and imparted habits and prejudices, all hostile to health and morality.

One of the most manifest needs is, first, instruction in the laws of hygiene as applied to the simplest problems of living. Much instruction can and must be given in the schools to fit the men and women, the fathers and mothers, of the next generation for a more wholesome living. But that is for the future. The *immediate need* is the instruction of parents. Those who have never actually visited the houses of the tenement districts can have no conception of the possibilities of ignorance and prejudice that exist.

This instruction may be given in various ways; thru lectures, by association with the people, in settlements possibly—tho better in the way of business or of some activity, as that of the teachers; and especially may the instruction be given thru the mothers' club and parents' meetings in connection with the schools. These offer perhaps the best centers for instruction to be given to parents, and should be much commoner and more general than they are.

The duty of the community does not end, however, with the assurance of decent housing conditions. Add to the house the playground, the bath, the gymnasium, the park, the library, and you have the minimum which a really intelligent community must do in the assuring of an environment to its children that shall make a firm foundation on which to build educational progress.

Turning from environment to the child we find that, second, it is the duty of the public to protect infant life by proper safeguards.

When a child is born blind, or deaf, or deformed, a serious burden is imposed upon the state. Modern medical science has shown that a large proportion of these handicaps of birth are due to prenatal causes or to conditions in very early infancy. For example, blindness is induced in many infants by lack of proper cleansing and care of the eyes. All properly educated physicians and nurses understand the simple and easily applied sanitary treatment that will prevent the development of the inflammation which results in either total blindness or permanently impaired eyesight. But the vast majority of the foreign-born among the poor employ a midwife during confinement. Many of these women have had no training whatever, and only the most rudimentary ideas of cleanliness. In many European countries there are laws providing for the instruction, training, licensing, and rigid inspection of midwives. In this country, with our growing foreign population there is a growing need of such legal regulation of the practice of midwifery as shall protect both child and mother. The state must see to it that the needed instruction is given. One of the most needed government agencies in the cities is an adequate corps of physicians and nurses, under the direction of the health bureau, to visit the houses of those who need it, to counsel with the mothers and fathers, to take charge of cases of illness, to defend the ignorant against quack doctors and unscrupulous and ignorant midwives, to enforce segregation of the ill from the well, and in general to see to it that hygienic conditions are maintained. As representatives of the government they could and should secure in the homes such conditions that infants may be born right, nursed right, fed, bathed, clothed, and exercised right, and may thus have a square deal at the outset of their lives.

The very great extension of the practice of maintaining a trained nurse in the public schools is also desirable. A nurse attached to each school could perform an educative function in the homes of the pupils whose value cannot be overestimated. New ideas about cleanliness, ventilation, and feeding could also be given by her to the overburdened mothers of the tenements that would richly repay the community in better-fed and stronger children.

I cannot leave this phase of the subject without alluding to the duty which the public owes in the protection of the unborn.

We protect our cattle and horses from deterioration of stock by care of the mother. We allow the mothers of men to be oppressed by greed, ignorance, and poverty during their pregnancy, and then the public pays the bill in the care of their deformed, feeble, epileptic, or idiotic children. There are already countries enlightened enough to forbid certain forms of toil to the pregnant woman. Self-protection will bring society at large to recognize the danger to the race in refusing the protection of the law to the helpless victims of our commercial civilization.

But poor old father Dermas cannot rest when he has protected the

birth of the child — bless you, there's the food question staring us in the face.

That it is poorly dealt with up to the present time is evidenced by the fact that some 50 per cent. of the babies that steer safely thru the perils of birth become discouraged and quit within the first five years. It is idle to rail about what ought to be. "It is a condition, not a theory, that confronts us," as President Cleveland said; the condition being that millions of people are crowded together in great cities; and that these modern cliff-dwellers are absolutely dependent upon their food and drink being brought to them from the far-away country; and in the bringing there are many things besides milk that suffer conversion into something sadly, fatally strange. The community must secure for the child clean, pure milk first and foremost. To educate milk producers to elementary notions of cleanliness, to facilitate the distribution of milk, to safeguard it at every step of its path from the cow to the child, is one of the most important tasks of public education and legislation. The national pure food law is only the beginning of what must be done in the way of legislation, both federal and state, to safeguard the health of the people.

There is no department of public responsibility for the child not yet of school age more directly connected with his successful accomplishment of his school tasks than this vigilant guarding of the food supplies. Most authorities agree that malnutrition is at the bottom of much of the "naughtiness," "stupidity," and "incorrigibility" of school children. Wise legislation to prevent the sale of injurious or impure foods, coupled with instruction in the selection and preparation of food will do much to eliminate the child who can't keep up.

The health bureau of many cities, notably my own city, has done much to aid the community in the simplest principles of the feeding, bathing, and exercise of young children thru the distribution of a pamphlet on *How to Take Care of Babies.*

As we leave the problems of infancy and approach those of the two or three years lying between the baby and the school child, the complexity of the problem and the diversity of view in regard to the proper solution increases. On the one hand, psychological science is making clear as never before the fundamental importance of these years in equipping the child for normal self-realization, and of guarding against permanently atrophying the higher powers of the nature. On the other hand, the patient first-hand investigation of sociologists is demonstrating that under our present industrial conditions there are great masses of our population utterly unable to provide for their children the wholesome activities and environment essential to develop them into efficient and useful citizens. It is idle to argue as an excuse for the public inaction that these conditions might be changed in time. They ought to be and they will be; but sociological changes come slowly: and meanwhile there are generations of children yet to come who must have their rights secured by co-operation or by public action, if at all. Many of the functions best per-

formed by the home must be undertaken by the community in behalf of the home of the future. To expect mothers who must toil all day to eke out the family income, or who are shut into the cramped quarters of a tenement, to supply the nurture that their children must have is to expect the impossible. Hence for a portion of our people, and that not a small one, the public must do a great educational work in preparation for actual school life, or else be foolishly attempting to build its educational structure on the sand.

The question is sometimes raised, what is properly the school age? And some are seriously asking if it is not too early or too late, if the kindergarten offers the best form of training for children under six, and if when the age of six is reached, reading and arithmetic offer profitable employment. This is a many-sided problem. It is not merely an inquiry into the proper employment of the time of children from early infancy. It is a very different problem in the large city or the manufacturing center and in the village or the rural district. In the country a child can be left out of school until he is eight or more, and still have his mind and body kept profitably busy. He can be educated as Rousseau would have educated him, thru contact with nature and thru doing things with his hands. Much of the best work that the town child does in the kindergarten the country child does better still thru the simple use of the tools everywhere about him, in natural activities. Tho it must be said of him, that if he is healthy, a few hours a day in a good school, after he reaches the age of six, will at least do him no harm. A poor school in which he is improperly employed upon the empty forms of knowledge may do harm in the country as well as in the city.

In the congested town life, if a child is left to his own devices until he is seven or eight, the range of suitable activities is so small that he is likely to come to school at eight a victim of arrested development, but an adept in evil. It is quite possible to make criminals of children in those years before the age of eight. As was suggested at the beginning, the state must take charge of the training and nurture of large numbers of its children from the very outset. What kind of training it shall give them at each stage of growth is a question for experts. The only expert capable of final decision is that rare combination, the doctor-teacher, the specialist in both physiology and psychology.

I think there can be no doubt that the earlier years, say up to four, should be wholly free from control—except such as is necessary to secure physical and moral well-being at the time. The occupation should be play—free and spontaneous. Children should play, and eat, and sleep, and be happy, in clean, wholesome surroundings with abundance of fresh air and sunshine.

The limits of this paper prevent any but the briefest mention of the manifold activities to be entered upon by the community in behalf of the child. Since the greatest educational factor of the first six years of a child's life *is* play, he must have playgrounds, amply accessible, fully equipped. And since these children of the city streets must be taught to play freely—spontaneously, imaginatively, and socially—these playgrounds must be presided

over by wise, sweet-spirited, and well-trained teachers who will play with the children and thru play lead them into a free and joyous social life.

There came into one of our playgrounds last summer a boy aged seven, but looking as old as his grandfather, wearing overalls and suspenders. He was leading his little sister Mary by the hand and wheeling a baby carriage which contained a rickety baby of one and one-half years. The father and mother were day laborers, leaving home at seven o'clock in the morning. Mary, aged three, was a little "tuf," and was only happy when hitting everything in sight! She was aided and abetted in this by the other children, who laughed at all of her performances until the teacher who was in charge of the playground suggested that they were hurting Mary and not helping her to grow up and be a better child. The teacher appealed to the children on their altruistic side, until finally they agreed it was not kind, and hence they would no longer encourage Mary in what seemed her natural tendencies. Ere the summer closed these bad habits died a natural death. Little brother, with his parental care, brought for baby's lunch on the first day a large piece of cake with white frosting. The teacher explained that baby ought to grow and could not on rich cake. The next day a large greasy doughnut appeared. On the third day the teacher achieved her object. John came with a bottle of milk. Approaching the teacher with a beaming countenance he said, "Baby will grow now, won't she teacher!" If the playground had existed for no other reason than to have driven the vicious tendencies from Mary and to have given the baby proper nutrition—it paid. It must be trained supervision to accomplish such results.

Outdoor playgrounds, and for stormy weather adequate covered spaces or playrooms indoors, are absolutely essential for babies, for older children, for growing boys and girls; playgrounds equipped for quiet games, for noisy games, for athletic contests, for all proper amusements, are part of the investment for the future that cities must make. To the playgrounds should be added recreation centers, where fathers and mothers can go with their children. Chicago's park houses are models of suggestion and inspiration as to what can be done for a community in this respect. And there must be parks, accessible and inviting, where children may roll and frolic in the grass, zoölogical gardens, where the child may make acquaintance with furry and feathered friends, personally conducted excursions to woods and field, and little garden patches where baby Adams may grub in the friendly earth. Transportation to these children's paradises should be furnished free if need be from the public treasury.

In conclusion: these are a few of the obligations of the state toward her children born of the poor, the ignorant, the helpless; the care of mothers before, during, and after the birth of children, instruction of parents in the duties of parenthood, such supervision of the home as is imperatively needed, legal control of tenement houses, doctors, and nurses trained—sympathetic and possessing authority—supervision of food supplies, then fresh air, cleanliness,

and room for play in healthful and moral surroundings. These and more the state must provide, abandoning all foolish notions of its limitations, when its life is at stake. For the life of the state is a sane, healthy, and moral citizenship, and the quality of citizenship is determined during the helpless years spent by the baby in the cradle and by the toddler at his play.

If the state is to be saved it must heed the cry of the children.

DISCUSSION

ELLA FLAGG YOUNG, principal of the Chicago Normal School.—It is difficult, if not impossible, to discuss the paper presented by the gentleman from Louisiana. The position taken in the opening pages is in accord with the principles for which the leaders in education stand today. But, as the speaker explained his subject, he illustrated the truth that it is possible for one to use the phraseology of advanced thinking, and yet in construing social ethics to dwell within the confines of the past. From this I shall attempt to enforce one practical suggestion.

It is easy for you, the superintendents of schools, to indorse here, in this assembly, every plea for generous provision for the education of those who are not yet participating in the economic activities of the state; but you may find it not easy, upon returning home and confronting the opposition of the men who control the commercial sentiment of the community, to harmonize your enthusiasm of this hour with your timidity in advocacy of the cause of that enthusiasm. The question before you, the superintendents of schools, is whether or not you have convictions sufficiently deep and strong, so compelling, that you must stand for well-equipped schools in which children shall be educated for modern life, even if that position lessens your reputation for clear ideas about business.

We all know that children, dulled by premature and long-continued toil in the factories, are a menace to the state; but have we an abiding sense of the futility of much that is done under the name of education? Have we a vivid idea of the conditions under which children come to be dull, come to be a menace to the state?

If children are dulled in the schools by non-productive, routine work that fails to arouse emotions of anticipation and satisfaction, then the superintendents of schools may speak the language of advanced educational theory, but they are holding the schools and themselves in the confines of the past.

MISS AMALIE HOFER, of Chicago Commons.—The framers of this program have evidently had in mind the wider purposes of education. Individuals have inaugurated manual training, domestic science, and kindred educational expansions until the state saw fit to take them over. Especially the woman, by very virtue of her maternal nature, has espoused and attempted "the impossible" for her children. Where in the eighteenth century there was one Gertrude, in one forlorn village of Bonnal, remaking it that her children might have a fair sanitary and moral chance, there are today great organizations of women, who do not wait for school or church or society to inaugurate such measures as pure food, prevention of child-labor, compulsory education, playgrounds, public baths, etc., etc. These are some of the great educational movements which are going on outside of the school, but which are a logical expansion and sequel to all sound determinations that children be given a fair chance and a square deal.

S. Y. GILLAN, Editor of *The Western Teacher*, Milwaukee, Wis.—The application of the subject under discussion is found only in the congested parts of great cities. Surely everyone will admit that in the worst portions of these plague spots the child should have at least a clean alley in which to play. And when we advance farther, the alley will expand so as to include shade trees, sand piles, and grass plots; t will develop into a wholesome

public playground. But when these things are suggested to the authorities they reply that there is no money for playgrounds.

In the present stage of our civilization, such eleemosynary efforts as are suggested in the paper and by the former speaker, together with enforced sanitation thru official inspection—efforts to ameliorate—are probably all that can be undertaken. But when we become wiser, and somewhat more civilized, we shall look below the surface and seek to discover what causes the slums; we shall no longer treat mere symptoms, but will diagnose and treat the disease.

The land on which the slum tenements are found is owned by men with swollen fortunes. Tax this land to its full rental value and the slums will disappear. We shall then have sanitary conditions, and money for public playgrounds. The schools suffer for the want of money, and the slums continue a growing menace because the owners of swollen fortunes—stolen fortunes—are the beneficiaries of special privileges. And we in our simplicity allow them to hold these privileges untaxed and to practice their religion, which is to get all they can and to keep all they get except those sums which they use for debauching public morals and which we advertise under the euphemism of "gifts to education."

THE FINANCIAL VALUE OF EDUCATION

JAMES H. ECKELS, PRESIDENT OF THE COMMERCIAL NATIONAL BANK, CHICAGO ILL.

I feel that I owe you all something of an apology for, when the courtesy was done me of inviting me to address you upon this subject, it was my purpose to have prepared with care an address which I might deliver upon this occasion; but, in the multiplicity of a great many business undertakings, and other things which came to me, not the least wearing of which was the recent death of my father, I found myself unable to do justice in the way of a written address, and so I am before you without having prepared anything upon this subject.

I hesitated a good deal, being engaged in the sordid occupation of handling dollars and cents, as to whether or no I should be doing the cause of education any particular good by trying to demonstrate that in this day and generation there is some financial value in being somewhat learned in the books of art and science and agriculture. I am not sure but today when public sentiment is such that financial success is considered a crime and the accumulation of money something to be abhorred, that if it becomes known that men can become richer and more industrious and more saving because they are educated, public sentiment will put the public school, and the high school, and the college in the same class with other corporations, and that there will be serious objection if provision is made for education which enables men to live well, make a fair appearance, now and then give something to a public charity or a public educational institution, and leave something for their children.

If it be true that such is the public sentiment as regards the result of financial undertakings, why might it not well be argued that the thing which enabled a man to make two blades of grass grow where but one heretofore had grown, which enabled him to apply an acquired knowledge of chemistry,

obtained from the books in the schools, which brought about greater results in the arts and sciences, which enabled him to know more of mining and metallurgy and all the other things that made it possible to take greater wealth from the earth; why, I say, could it not well be assumed that the encouragement of such a thing resulted only in harm instead of in good? Or, in other words, that when educators had departed from that which in the earlier period of educational undertakings developed simply the scholastic side of man, and gave instead the industrial and commercial education, that they worked out harm instead of good to the community?

I trust I shall not introduce any discordant element if, in line with this suggestion, I say a word or two upon the question of swollen fortunes. This country within the last two decades has seen a progress so wonderful that not alone our own people but the peoples of other nations have stood in amazement at it. There has been great development in lines of transportation, in the mining industry, in agricultural pursuits, in the marvelous advance of manufacturing, in the still more wonderful advance in scientific undertakings, not the least cause of which has been that from those schools and colleges over which you gentlemen preside, has come a practical knowledge of the things which are necessary for the development of these resources which heretofore in this country have existed, but have not been developed. And, as a result of getting away, to an extent, from the mere scholastic education, and developing the practical side, making the school the place to learn how to manufacture, how to apply science in a practical way, how to make agriculture a science instead of a mere haphazard thing—because of these reasons there has been this wonderful growth of wealth; and, as a result of it, men have acquired great fortunes.

I am not here to say that all those fortunes have been amassed honestly, but I am here to say that in the vast majority of cases the same rule of honesty which you gentlemen apply in your daily life has been applied in the acquirement of them; and when there is created, upon a false basis, a false public sentiment which without inquiry and without discrimination attacks men who have obtained wealth and who are using that wealth in a proper way, public sentiment will be so vitiated that this country must in time come to a serious situation—class interests will be created and class prejudices be engendered.

What the educator ought to do in the education of youth is to teach without a shadow of variableness or of turning the ordinary common rules of common honesty; and, if that honesty is taught, there never need be a complaint of a fortune, whether it be great or small, having been accumulated except thru honest methods. There is no such thing as dishonesty with an honest man. And, whether that man be poverty-stricken or rich as Croesus, he is still an honest man; and if he is a dishonest man, whether he have a swollen fortune or be an object of charitable indulgence, he is still a dishonest man.

Patriotism in the country is not the single province of any class or any

creed or any political organization. It comes not thru wealth, nor is it the outcome of poverty. Truth and righteousness and the things that make up good citizenship may belong to the scholar or to the man of ignorance, but they are the common heritage of all our people, irrespective of creed, or race, or business undertaking. What the people of this country at this time need most is to learn the lesson that prejudices and indiscriminate charges and all the things that make up discord and discontent are working a greater harm to the people in all their various undertakings than can be overcome by the results which flow from such agitation.

But now to the subject. I think as I have stated, that the great advance which education has made in this country within the last decade is an advance along practical lines. An analysis of what has been accomplished by introducing into the school a knowledge of agriculture, it seems to me, will demonstrate that it has been of more benefit, especially in this great western country of ours, than any other undertaking which the educator has had in hand within a very long period of time. I was asked the other day how I accounted for the fact that in the West, and especially in the Mississippi Valley and on the Pacific Coast, there had been brought about such a marked difference in the condition of the agricultural interests. My reply was this: that, especially since the period of the last financial depression in 1893, there had been a great light seen by the farmers of this country, and that for that light the educators in our state institutions were to a very large degree responsible. That until there was taught in these institutions a scientific knowledge of farming, a knowledge of what the soil consisted of, of what the soil was best adaptable to, and the kindred things which are essential to successful farming, the farmer went at his work in a haphazard way, planting a crop here and a crop there, without any knowledge as to whether that particular crop was fitted for that particular soil, and without knowing whether there ought to be from time to time either changes in the crop planted or in the fertilizing of the soil; and that, thru this schooling, there had come, as an additional means of making the farmer more successful, the growing of a variety of crops.

I can remember, as all of you can, that in the early days, for instance in Kansas or in the Dakotas, if there was a disaster of some kind, there was absolute distress and poverty everywhere, because the farmer had not learned the wisdom of raising a variety of things instead of confining himself to a single thing.

I gave, as another reason why there was so much wealth being produced in the West, the fact that the schools had taught the science of metallurgy and had applied chemistry to the mining of the metals, so that ores which a few years ago were considered of little or no value, now, by the processes which have been applied thru a knowledge of the science of mining, gained in the schools, were made of very great value.

And so you might take up a great many other educational benefits which have come to the practical business side of life in such a way as to make a

great amount of wealth, where heretofore there had been a great amount of poverty. I cite another instance in connection with agriculture, and that is the perfecting of scientific and mechanical inventions which have made possible the bringing to the arid parts of our country the benefits of irrigation; where water, heretofore useless, has been applied to land, heretofore useless, until you have as a result very great and wonderful agricultural wealth.

Then take the question of electricity. Its application to the art of mechanics has been so very wonderful that it seems incredible to think that only as far back as 1876, when the Centennial was celebrated in Philadelphia, there was not an electric light in that great aggregation of buildings. And then there is the other and broader side, which is different from the side of mechanics, or of transportation or of agriculture, and that is that it is thru the schools that the young man and the young woman are best fitted to gain such a knowledge as is essential to the multiplicity of undertakings in the business world.

I once heard President Wilson, of Princeton University, say that, if he were to sum up in a single sentence the great benefit of education as applied to commercial or financial undertakings, he would say that it gave the student what he termed "the traveled mind;" in other words, that it gave him a mind that enabled him to lay hold on what was being done in other parts of the world; that it gave him a mind that knew the geography of the world; that it gave him a mind that knew what was being done by peoples of other countries; that it gave him a knowledge of what India could produce; of what South America had; of what all the European countries were best fitted to do, and what, in the mechanical, the business, and the agricultural world, these people were doing; and that, as applied to the ordinary affairs of business, the affairs of the banker, the affairs of the merchant, the affairs of the manufacturer, is, to my mind (apart from the purely practical side of education) the best that it accomplishes.

For he who studies the conditions of this country and other countries today and knows the kind of competition in every line of business, whether it be banking, manufacturing, or other undertakings, must have been impressed with this one thing more than any other: that we have reached a period now where we cannot succeed unless we have the very best knowledge and the very best methods to apply to the business in which we are engaged, because this is the age of competition; the age of competition upon the part of those who have brains and who, having those brains, know best how to apply them to the hand, so that the hand can accomplish the greatest results with the least physical labor. It is the age when every man must be alert both in body and in mind. It is the age when a man who is extravagant in the work which he does, falls far behind. It is the age when the profit in business is the doing of the most at the least cost, in the most scientific way. It is the age when the man who acquires a fortune, whether it be small or swollen, gets it because with the very least amount of cost he turns out the largest volume of product

and he finds his profit, not in an extravagant price charged for a single article, but in making that article so he can sell it at the lowest price, with the least profit, and sell the greatest number of articles at such a price that most people can buy them.

Now that is what makes fortunes; it is not trickery. In the great majority of instances it is the application of an acquired knowledge, coupled with thrift and industry, and the continual study of conditions here and conditions elsewhere. And, while here and there there are those who have acquired vast amounts of money thru their wits and not their brains, they are so few in number that they stand conspicuous in the world and are the objects of ridicule on the part of those who point them out and do not draw the distinction that they are the few instead of the many in this world of ours.

These people who talk so much of swollen fortunes are ignorant of this great world of business, here and elsewhere; for I tell you that were it not that honesty is the rule, that faith in our brother man prevails, that absolute confidence is everywhere shown in business, all this vast complexity of exchange of product, all this trusting one another, would go, and we would all be lost in a hopeless vortex and abyss of disaster.

I believe in the honesty of men and women. Only in such a belief apart from class prejudice and class hatred are you ever going to have a country and a government here worthy of your efforts as educators, and worthy to be given to the children that are under your charge. When you have taught a different doctrine, when you have instilled into the minds of the coming generation that the mass of men are dishonest and the mass of women encourage them in it, you have undermined the very foundations of this republic of which you boast.

What ought to be taught is to flay the dishonest man and drive him from public and private place. But, in teaching that, use the discriminating mind; know your facts, study well your case before you undertake to apply the lash, for it is better that ninety and nine guilty men should go unwhipped of justice than that a single honest man should be held up to public ridicule and scorn.

I am no pessimist, and in an optimistic view I have always believed; but I tell you that if the public mind of today, fostered by unthinking prejudice, fed upon class hatred, continues, and men do not get back to their second sober sense, this boasted prosperity which is ours and which exists, this doing of good upon the part of so many, must of necessity come to an end. We will find ourselves instead of an object of great pride and an object of great envy, a nation that will invite commiseration. There is no room in America for any class distinction or any class prejudice, and the sooner we learn it, and the sooner we practice it, and the sooner we are again true to the earlier traditions of the republic and the things that made this republic great, the sooner we will be freed from things which annoy and which fret and which destroy.

I am not here to say but that out of some of this agitation which we have seen has come much, and will come much, of public good; but I am here to say

that the agitator alone cannot make a country great, and that common-sense is never so necessary as when agitation is abroad in the land. It was once said by John Stuart Mills, who was as great a political economist as ever held a pen in hand or taught the doctrines of political economy, when to his attention was called the fact that the people of the United States were in a serious situation because of some great agitation which was going on, that he had noticed this agitation, that he had studied it, and that he had studied thruout the whole period of their national existence the people of the United States, and that, while it was disturbing, he had not lost faith in them, because as the result of that study he saw this: that many times the American people were upon the verge of doing a very foolish thing but always at the critical time the common-sense and the common honesty of the people asserted itself; the wrong thing was put down and the right thing prevailed.

And so, strong in that same belief, with full confidence in the American people's common honesty and common-sense, we can have full faith that even in the midst of great agitation, where discrimination is lacking, lacking both in respect of honesty and because of demagoguery, that in the end the thing will work itself out; the right will prevail and the wrong will be put down. But the strongest element in it all is the element controlled by the educator who in his keeping has the youth of the country, whose minds are open and receptive to the truth, whose minds, too, are alike receptive to error; who take their teaching unquestioned, almost, from you who educate them and for whose success in life, success in morals, and success in the discharge of their duties as citizens, you share the responsibility equally with the home, and if that responsibility is properly met I have no fear that in the future the history of this country will continue great and the achievements of this government glorious.

SHOULD THE SCHOOL ATTEMPT THE CIRCLE OF THE CHILD'S TRAINING OR ADDRESS ITSELF TO THE SCHOOL SEGMENT?

LAWTON B. EVANS, SUPERINTENDENT OF SCHOOLS, AUGUSTA, GA.

Supposing that there is such a thing as a circle of the child's training, what are its segments? Evidently, the first and most significant is that portion of his life when, as infant or child, he is altogether under the influence of his home surroundings and of his young playmates. Unquestionably he receives impressions and directions physical, mental, and spiritual, that endure for life, some of which should endure and some of which should be modified or changed entirely.

It is safe to say that whatever influences a child is born with and lives under to the time he enters school will persist. If the home life is wholesome and co-operative it will probably remain so. If the home life is unwholesome and antagonistic it will probably remain so. The fact that a child starts to

school when he is seven years of age does not alter or modify his home conditions. He enters the segment of another influence, but carries with him the modifying conditions that have controlled him in his primary years. Those modifying conditions continue to delight or perplex the teacher who is responsible for the next year of the child's training.

At one time in the history of education, when a child entered school, his purpose was to learn how to read, how to spell, how to write, how to calculate, and to acquire the simple facts of history and geography. It was all mechanics, withdrawn from life entirely, and his education was indeed a simple segment in his experience. When he left school he knew a good many things and was fairly capable of learning how to do a good many other things, but his school life had to be welded to his after-life by a fierce heat of adjustment, and often the welding was difficult and insecure.

Nowadays we are trying to think differently, and instead of regarding school life as a segment of life, it is rather a condition of life. It is all of life that is suited to a child of school years. At home he should have had all of life that he could understand as an infant, and now at school he undertakes all of life in the many phases that he can appreciate.

In this view there is no school segment, as separate from other segments in the circle of his years, but there is a school ingredient that enters with other ingredients to make up the man; there is a school influence which added to other influences makes up his character; there is a school element that combines with other elements to give tone and vigor to the man.

If we should adhere to the school segment, what would we do? We would teach a child to read, and then leave him to read anything or nothing. We would teach him to write a good hand, spell some long and hard words, parse or diagram intricate sentences, and leave him vacant as to how to put all these together in his own composition. We would teach him to solve puzzling problems for the sake of mental discipline, and leave him unrelated to the world of business, and he could recite many long and needless facts in history and geography. Indeed he would be a small encyclopaedia of knowledge, much of which he would forget, with the student habit so fixed upon him as to find himself out of adjustment with and rejected by the world of affairs, unless, as happens generally, his own good sense remains intact and he learns out of school the very things he needs to learn in school.

I really believe that the best thought of the profession urges the breaking away from that mechanical perfection in which pupils do startling things from memory and perform prodigies of work that the successful man complacently applauds as beyond him. Instead of this the thought of the hour is to have a child related in his work and enterprise to the affairs of the world, natural, mechanical, financial, governmental, spiritual, cultural.

This interest should be a child's interest and the problems that he solves should be a child's problem, but they sweep the whole field of life's experience, and, though the detail of a man's thought and power is impossible, yet the

main facts are there, and the wide-eyed boy stands upon the threshold of the world's work and longs to take a part in it and be of it; and the real school will some day emerge from the confusion of the modern curriculum and will show a child how things are done—a lesson that the world has learned through bitter centuries.

And so we are trying not merely to teach a child to read, but to give him the uplift gained by an insight into the great literature of the world. Reading assumes a spiritual aspect, rather than a mechanical one, and we strive for intellectual appreciation and sympathy with what is best, rather than for glib rendering of hard extracts. The age for puzzle-problems is passing, and we teach how the business of the world is done and what business is done. Mere parsing is no longer considered good grammar teaching, but good speaking and correct sentence making is more valuable. It is better to make good sentences of our own than parse those of others. Content is greater than form. It is of more value to write a good thing in a fairly legible hand than it is to copy a good thing in perfect penmanship. We are studying natural forces and facts at first hand, are working out the problems of manual expression and of homekeeping, rather than reading about them in dull books. This is a school age of acts rather than facts.

In all this we are not necessarily adding to the burden of our curriculum, but we are leaving undone many of the needless things we once did, and are relating all the other things in such a way that each study supplements and supports the other. The curriculum then becomes one thing instead of many things. It is presented to a child in the way it comes to him in life, and school goes on outside the room as well as inside. In this larger sense the school interprets and explains life as it is going on all around us—the business life, the social life, the spiritual life, the life of the natural world as modified by man's need and enterprise. Then when a boy finds himself out of school he finds the world ready for him and himself ready for the world.

Nor need we expect to teach a child many things as compared with what he will afterwards learn. We can but give him a glimpse into literature, science, history, art, and the world's affairs. If he desires to learn more of any one department there are the colleges, universities, special schools, and the apprenticeship of the world itself. We are foolish to attempt to make experts in a dozen different things. In the lower schools it becomes a mental and moral question, and the child's attitude toward all things is more important than his aptitude in one thing. It will be a happy relief to the children when teachers cease to cram it in, and the old nursery measures of ordering the innocents to shut their eyes and swallow are abandoned.

The burden of school teaching today is not the enlarged and enriched curriculum, but it is the senseless grind of many different and unrelated facts which are taught as facts and not as forces. It is the restricted teacher bound to the text and the required course for the year and the examination questions. It is the long, dull page about nothing in particular. What wonder that some

schools are prisons when there is no view of life, and some teachers but jailers and task masters? Real teaching puts the child in the center of the circle of the world's interest, and shows him the great machinery in motion all around him. He catches glimpses of every phase of life, chooses his lot, and prepares himself for his destiny.

George William Curtis, in *Prue and I*, said of his education: "My father sent me to a schoolteacher and I found him a rag; he sent me to another and I saw in him only a ferrule; he sent me to still another that I found to be a well of deep, cool water, and, looking in one day, I saw the stars."

ADMITTING THAT OUR SCHOOLS ARE DEFECTIVE, WHO IS RESPONSIBLE FOR THE PRESENT CONDITIONS?

PAYSON SMITH, SUPERINTENDENT OF SCHOOLS, AUBURN, MAINE

Whatever claims we may make for the institution of the public school we cannot quite justify the one that it is a divine institution.

Indeed it is a very human one, constructed by human hands and directed by human brains, and because this institution is so constructed and so directed it must suffer from defects—the defects that are inseparable from the human qualities of its originators and its directors. And the defects of this institution cannot always be those well-defined, clearly marked defects which are to be readily detached from the mass of excellences with which they are connected; indeed it is by no means easy to secure an agreement as to whether a defect in the schools is a defect—so soon as you prove absolutely that it is one someone else makes entirely clear that it is a positive virtue.

Therefore it is no easy task to discuss the defects of the schools in a twenty-five minute paper—not easy, unless you remind me that any superintendent of schools who has not been told by his patrons of enough defects in their schools—and all owing to him—to stock a paper many times that length, must be without sufficient experience to justify his attempting the task.

However, I do not understand that you will expect me to refer to the every-day defects in the schools. I take it for granted that we all know that children can't spell as well as they used to spell, that only about one in a hundred can add and subtract with the facility of our fathers when they were boys, and that the schools are weakened and vitiated by all the frills, fancies, and fol-de-rols which our hard-headed ancestors would have ridden out of school on the same rail with the teacher who had dared to introduce them. Passing over these commonplace defects then, may I address myself to certain general conditions which appear to me to be worthy of our attention?

One of the most serious defects in our modern school lies in its failure to serve the individual. We have become accustomed to dealing with children in the aggregate instead of with the child as an individual being. In the recent years which have seen rapid urban growth we have had to deal with

rapidly increasing numbers. In disposing of numbers modern system came to our rescue, and we found that we could meet our new difficulties by creating classes or groups arranged according to age, or size, or supposed advancement in certain leading subjects.

Modern system helped us further by devising courses of study to be administered in sections, so much a year to each of the groups it had helped us to arrange, and it gave us still more aid when it provided certain methods to be employed each year for the administering of each year's quota to each year's class or group; and thus was created our modern grade-system of schools.

The material, however, for whose benefit this system was to be conducted is by no means as uniform as the system itself. Drawn from all races, from all strata of society, from all conditions and customs of living, representing all sorts and varieties of natural and acquired tastes, talents, and capacities, the teacher is confronted not only with the task of molding out of the mass a citizenship of a worthy type, but, as well, that of fitting each individual for the place for whose work he is best adapted.

In certain phases of work our mass teaching has been a success. We have settled upon certain broad foundations which must be laid for all other education and we are accomplishing certain large results with much credit. How much is to be done now, however, in the way of making this school system of ours fit the child rather than the child fit the system is apparent to those who are in a position to note the annual falling by the wayside of the thousands of children who cannot be crushed into compliance with the terms offered by a cast-iron school system. This course of study we have designed to meet the needs of an indeterminate individual whom we call the "average child;" these methods of teaching we have devised to meet the supposed intelligence, intuition, reason, and judgment of this same "average child," and we have given the former by means of the latter to all children, regardless of the fact that our so-called average child is after all a composite child of the imagination and no real child of flesh and blood that was ever seen.

While this defect which we are considering is due in a measure to the extreme to which system has been carried, it is likewise due in part to a false notion which many of our people, including some teachers, hold regarding the office of education. The idea has obtained that the public school, as well as other educational institutions, exists for the chief and nearly the sole purpose of giving knowledge. The larger office of education is not to give knowledge; it is to develop power. Galileo well said, "You cannot teach a man anything; you can only help him to find it within himself."

We have spent and we are still spending so much time and energy in teaching facts that we are neglecting that other more important duty, which is to help children to find themselves, to know and to use the power that in them lies. The value of a school system is not to be measured by the multitude of things a child must learn under it; rather is it measured by the question as to whether, from the multitude of its offerings, he can find the things

few or many, which will meet his needs. We are agreed that the subjects which we use as a medium for the educational process may be wisely or unwisely selected from the view-point of the mass. Is it not possible also from the view-point of the individual that this selection presents a question to be answered with equal care? That which will provide just the right mental stimulus for one child may not be at all the thing necessary for another. To direct any other than individual treatment is hardly less foolish than would be the act of a physician who should order for all his patients the same kind of medicine, regardless of the ailments he is curing, or the constitutions of his several patients.

We have been much concerned of late regarding the abnormal child. We have awakened to our duty to the child to whom Nature has apparently been unkind. We are appreciating the extent of our obligation to the deaf, the blind, the crippled, the mental defective, and the moral delinquent. This awakening has come none too early. But while we are considering all these cases who can say that he has ever had to do with any child so absolutely normal, so evenly developed, that he presented no peculiarity nor weakness? When we shall have builded institutions in every state and in every large city for those classes of children whom the public school cannot possibly serve, there will yet remain that vast majority of children who present ordinary peculiarities and deficiencies by no means to be overlooked because they happen to be so slight as to afford no justification for placing the children in special schools. In other words it will still be the duty of the public school to treat as individuals the children who attend it.

If our schools are to meet this demand then must our courses of study be framed so that in them will be found those things which will meet the needs of all children; our programs must be so arranged as to afford time and opportunity for the teacher to meet her pupils individually, and we must cease to hold in sacred regard a system which is so systematic that it will neither break nor bend.

If this school system of ours is maintained for the child shall we not adapt it to his needs? But if, on the other hand, we cling to the belief that the child is created to feed the system, then must we not expect the continuance of present results, the casting out of multitudes who cannot be made over to meet its requirements? The advance made in recent years in methods of class instruction has been notable. I believe it requires no seer to prophesy that in the years that are just ahead our greatest advance is to be in making the public school a more efficient instrument in bringing the individual into his own inheritance.

From the defect which I have just named to the next one in my list is a logical step. The principle which has been mentioned is as applicable to communities as it is to persons. In the matter of laying educational plans it is possible to err in the too close imitation of others, commendable in themselves but impossible of adaptation to the schools with which we have to do.

It is certainly both natural and desirable that leadership be acknowledged and that we be ready to follow those whose rarer knowledge and keener insight make clear the pathway before us. Yet every superintendent knows that the same method of teaching will not always meet the same degree of success in the corresponding rooms of the same building, to say nothing of the different schools of the same town or city. The principle holds even in the broadest way. A scheme which works in New England may not be practicable in the South, nor may the one which is practicable in New York be equally so in Chicago. What is true of communities is likewise true of various types of school. May I illustrate by calling your attention to the two types of school which we see, the one in the city and the other in the country? With the rapid centralization of population, with the creation of the new and fascinating problems of city schools, with the larger funds at the disposal of city directors, it has been natural that a preponderating attention should have been given to city schools. While this condition has prevailed, the country school has either been overlooked or it has been made to depend for its advancement upon such points as it could gather from the experiments tried in city schools. The result has been that improvements in the country schools have been attempted along lines similar to those successfully tried in city schools. But this effort to improve the rural school by imitation of a school created to serve a totally different type of community has been accompanied with small profit to the former. Much of the work done in rural schools has been actually subversive of the best interests of country children. They have been educated away from the farms, out of sympathy with the country and its life, until for self-preservation's and happiness' sake they have fled to the city in order to find there the only places for which their education had prepared them.

The future development of the country school is to lie along new lines. It will make use of the material that lies close at hand; its curriculum will include those subjects of interest to the country child; its methods will conform to its means; it will promote those forms of manual training natural and indigenous to country life—and it will be worthier of respect for being itself rather than a weak imitation of a town school. The principle cited is applicable to the cases of different towns and cities. The school system of any town or city exists in a measure to serve the interests of the community which creates and supports it, and it may lose its chief value in the attempt to model too closely after other towns not similarly placed. Just as the individual teacher has methods which she uses with peculiar success and has characteristics which are reflected in her school, so will each school bear an individuality of its own. And in a larger way should all the schools of a town bear essential characteristics which will stamp them and hold them together as the individual system created for, by, and of the people for whose welfare it was constructed and is run.

It is often said that the school work is cramping and narrowing in its effects. If this is true of your school work or of mine is it not because we keep too

close to the lines of convention and tradition, because we follow too slavishly what others have planned, and allow to ourselves too little of that freedom of action which is the saving grace of any employment?

A current criticism of the modern school is that it crowds too much work upon the child, that it requires more work of him than is consistent with mastery and thoroness, and because I believe this criticism is in a certain way well grounded I am naming it as the third defect in the schools.

Now it must be borne in mind that in any comparison regarding efficiency the schools are at a great disadvantage as related to other professions or industries. The physician's patient improves and gets well, or grows worse and dies; the lawyer's case is passed on by judge and jury and a decision is reached. They know whether they have failed or succeeded. The manufacturer, whether of shoes, watches, furniture, or what not, can go at once to his finished product and can make an immediate decision regarding the efficiency of his workmen. Point by point he can compare it with past product and determine at once whether there has been progress and improvement. Not so of the schools, however. The efficiency of our present-day school system, for example, is not to be finally judged until its product has not only taken its place in the world but until it has been in that place long enough to have accomplished something. The custom, so general, of judging the schools by comparing the work of children with the alleged work of their parents at a corresponding age is as unfair to the schools as it is to the children themselves. In the experimentation which is inseparable from progress in education and which must, it is true, be based in part on theory, it is impossible that some mistakes should not be made; but to infer that such experimentation, because it involves change, is productive of harm is to deny the advantages of study, investigation, and the pursuit of truth. Therefore as much of this complaint as issues from dissatisfaction with new subjects coming into the course of study is not worthy of serious consideration. There is no need for an apologist for the introduction into the schools of any subject which a study of the needs of children, the changing conditions of life, or the ends of education clearly make necessary. However, when a study or a portion of a study remains in the school after its lack of value is apparent, then there is a need for apology.

The overcrowding in the schools is due to three things: (1) to our notion that every child must take all parts of all the work offered, regardless of personal and individual need. To this I have already referred. (2) It is due to a certain Chinese characteristic of our people which insists that whatever the past generations had, educationally speaking, must go into the training of the present one. There's many a farmer who improves his farming methods every year who would apparently have us believe he would like his boy to be educated by exactly the same methods used on him twenty-five years ago.

We cling to those things which heredity and tradition have made dear. And because tradition says study arithmetic nine years from notation and numeration thru partial payments and cube root and mensuration, then

arithmetic so administered it must be. Conservative public opinion, itself the severest critic of overcrowding, is in part responsible for the condition it deplores. And the third cause of overcrowding lies in the domination of the lower schools by the classical colleges. The "college trust," if I may apply a term so commercial to an institution so literary, attempts to determine the limits of education, not only for itself, but for all the schools leading to it. So much mathematics and of just this kind; so much English and of just these authors; so much history and in portions of just so many hours. By meeting these requirements and these only, admission to the college precincts may be gained. In the great majority of towns and cities the only practical way of meeting the requirements is adopted, and the course of study is framed for the whole number of students to meet the needs of the few for whom the colleges have prescribed.

In the state of Maine there are two hundred and fifty high schools, and the courses of study in these schools follow chiefly the requirements laid down by the classical college. In that state the leading industries are manufacturing and farming, and unless you consider commercial courses in some way related to the former and physics and chemistry to the latter, then in all those two hundred and fifty schools there is no subject referring directly to the interests I have mentioned.

If the elementary and secondary schools are to serve the people better, then must the colleges make a more careful study of the demands which are being made in other directions on the lower schools and adapt their own requirements to meet them.

There is a class of defects in education, usually set down by the unthinking as defects in the public schools, the responsibility for which must, in my opinion, be placed at other doors. There is a current notion that the whole work of education must be attended to by the schools. It has been overlooked that two other great and important institutions have their duty to perform for the young as well as has the school. The tendency to force upon the school the duties, privileges, and prerogatives of the home, for example, is dangerous to the school, to the home, and to the child. Among all the institutions of the world none is to be compared in its possibilities to the home.

The church holding on high the standard of the cross and pointing out the higher life has indeed been a powerful factor in human progress; governments climbing century after century to higher ideals have secured for mankind larger freedom and broader rights; educational institutions seeking the pathway of truth have blazed the way to enlightenment and to wisdom; fraternal organizations have linked human hearts in brotherly affection and they have cemented the social bonds of the world. But permit me to say that not one of these alone nor all of them together has ever taken the place or ever can take the place of the home. In it the sacred obligations of religion find their truest expression. By means of its association, government teaches its first lesson of obedience, and the rights of others receive their first recognition.

There self-sacrifice and affection find their finest opportunity. In it education begins, to the perpetuity of it education must tend, and without it education would not be worth while.

Some of the greatest moral lessons life has to teach must be taught in the home. Loyalty, honor, courtesy, self-reliance, self-control, respect for law, and obedience to authority, these are some of the things that cannot be taught by the school alone; and when I hear the criticism that our schools are defective because they do not teach these things, then I am inclined to answer that others than the schools must answer in part for the defect. I have small sympathy with the claim that our schools are defective on the moral side. If it be true that education as a whole does less for children than it ought, then I believe the school must not be made to shoulder more than its share of the responsibility. Pink teas and Browning clubs are responsible for more child neglect than are the teachers and the public schools. Again, we hear that modern education does too little for the child's religious training. If this is so, shall the public school bear the entire blame, or is it possible that the church has a duty to perform? I am ready to agree that the public school may properly give more attention than it now does to Bible literature and Bible history—that both are of too great value as literature and as history to be left out of the courses in these subjects. But this does not by any means indicate religious training. Teaching these things bears about the same relation to the strengthening of a strong religious faith as teaching technical morals bears to making a boy good. The training of the child into the faith of his fathers can be done by the home and church alone, and such training will follow when these two appreciate their obligation and their opportunity. Whatever our faith we must admire that loyalty and devotion which the Catholic church pays to childhood. She watches her children and she claims them for her own. Let all the churches write into their creeds a belief in childhood and its right to a spiritual training, and there will be no failure of modern education on the religious side.

From religion to politics may be a far cry, but I cannot close this paper without a brief reference to those unfortunate defects in our schools which are caused by professional politics. The person who seeks to promote his power by the multiplication of wires he can pull, by the amount of patronage he can dispense, by the sums of money he can expend, by the opportunity to play to the great galleries for applause, has unhappily not hesitated to make use of the opportunity offered by the public-school system for doing these things. The political boss who has invaded and perverted every other branch of public service has not been deterred from invading even that branch which has in charge the training of the youth. The forms in which this insidious foe to good schools does his work hardly need description. He breaks down the efficiency of the schools in the contracts which build the schoolhouses, in the purchases which supply and equip them, in the unseating of competent teachers, in the promotion of undeserving ones, and in the silencing for party

reasons of the persons whose voices should be influential for better things. The evil lifts itself as well against the high official who gives years of eminent service as against the obscure teacher who goes down before pull and favoritism.

I have not lost sight of the fact that there is a sense in which it is proper to consider what we may call the political interests of the schools. Under our present representative form of government our schools are presumably to be conducted in conformity to the wishes of the people. There are proper means to be used to discover what these wishes are, and as well to direct in the formation of a public opinion that shall desire improved conditions. But of the deplorable state of affairs which allows ward bosses and time-serving politicians to dictate educational policies and to interfere with the schools it is impossible to speak in terms of too severe condemnation. It is a happy thought, however, that if the politician is the natural enemy of the school, so is the school the natural enemy of the politician and the things for which he stands, and it is the public school which will finally drive him out of his nefarious business.

Of all the defects in the schools perhaps none is more glaring than its failure to inculcate in children the liking and the power for work. We have so long held before youth the idea that the achievement of education means escape from toil that now we are even trying to make the process itself a laborless one. We are constantly trying to devise methods by the use of which children shall be merely the passive agents, accepting, without reciprocating effort even, what the teacher and the book can get into their heads. Where education once meant labor, exertion, and self-sacrifice it now means often merely getting into a wagon, being comfortably tucked in, being hauled to school, being placed tenderly in an adjustable seat, being given a free textbook, free paper, and a free pencil, and being interested and entertained into knowing something thru such educational vaudeville as the teacher may be able to carry on. The process begins in the kindergarten and continues until graduation from the high school, so that the modern child counts that day lost which sees not some new game, amusement, or device, or athletic event, or dance, or fraternity gathering, to keep alive his interest in his school and his education.

Do you remember away back in your own school days the tough old problem—how you struggled with it in school; how you took it home with you and sat down after supper to study into it; how you took it to bed with you and slept over it and how you got up and went at it again in the morning—and then do you recall the glad flush of happiness you had when you gained the victory? And aren't you grateful today to the teacher who allowed you to have the joy of that triumph? It appears to me that in the softness of our modern pedagogy there is the danger that we shall prop and shield and coddle our children until they lose the power to go alone. The education that is worth while does not imply freedom from labor: it means ability and power

for labor, and a purpose to labor as well. It does not mean dependence: it signifies independence; and that educational process is faulty that does not leave the child at each succeeding stage abler to work for himself, more his own master, more independent both of the *teacher* and of the class.

For this defect we must all share the responsibility. Parents cannot bear to see their children undergo the same trials and hardships thru which they themselves passed. They are forgetful that thru the ordeals of self-sacrifice, effort, and overcoming are developed the hardy virtues of the race. Teachers on the other hand like to have a part in the educational process. We do not like to efface ourselves. We want to feel that we personally have something to do about it. And so we interfere with our development lessons, with our tricks and devices, and with our explanations, until there is danger that our pupils lose the power to initiate, the ability to attack and to conquer for themselves the problems and the difficulties which they encounter.

If our schools shall succeed in producing generations of independent responsible men and women able to think for themselves, act for themselves, support themselves, then must we be careful lest we take from them in youth the influences which shall work to these ends.

HAS THE PRODUCT OF OUR SCHOOLS REASONABLE FITNESS IN SCHOLARSHIP AND PERSONAL QUALITIES FOR CITIZENSHIP?

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The purpose of a system of education varies with the age and the ideals of a nation. Sparta through training sought courage; Athens, beauty; Rome, power; monasticism, piety; the Renaissance, classical culture. But the immediate purpose of our state systems of education is manhood, the ultimate purpose, citizenship. This citizenship calls for personal intelligence and personal integrity. And the question assigned to this paper for discussion is simple and direct: Are the schools to a reasonable degree meeting these two demands of modern citizenship?

The pessimist who bemoans the decay of civic virtue will answer this question in the negative. And his answer in the main is correct.

In reaching this conclusion, he is materially, tho unintentionally, aided by the public press. It speaks little of the nation's broad fields of civic life, rich with golden grain, while it discusses at great length the intermixture of tares growing here and there. It devotes small paragraphs to the intelligence, culture, and character of our people; while it gives whole pages to their vice, ignorance, selfishness, and greed. It admits that we have excellent schools, great colleges, magnificent libraries, beautiful churches, splendid asylums, and fine hospitals; while it advertises with great headlines the gold bricks, the political machines, the corrupting lobbies, and the oppressive

monopolies of modern business and political life. The press is wont to overlook the common honesty of the masses; but it proclaims with trumpet blasts the bossism, the dishonesty, the selfishness, the corruption, and the political graft in municipal mismanagement. It has little to say about the small business institutions that pay for all they get, seek no rebates, and live in the open fields of honest competition; but it announces from the housetops the selfish methods of corporate wealth; methods that suborn legislation, enthrone dishonesty, corrupt public morals, and buy for a private price what should be sold openly and then only for the public good. It speaks in whispers of the personal integrity of the average business man, while it is loud in its denunciations of the juggling methods of high finance by which a man may actually sell his plum and still own it. It passes by the honest lawyer to discuss the great legal lights who sell their talents to the predatory corporations, and show the directors of such bodies how to break restrictive laws without breaking into the penitentiary.

Thus the pessimist sees the decay of public virtue. To him the golden rule and the moral law may not be "iridescent dreams," but they seem to be submerged in the raging torrent of political corruption. These ancient laws, if not abrogated, seem at least to be sinking into a state of "innocuous desuetude." Money seems better than manhood; cash more important than character; and growth in graft more in evidence than growth in grace. And, as a consequence, the school is not meeting the civic demands of modern life.

These conditions reported by the press actually exist, and it is right and proper for it to give the broadest publicity to all dishonesty and malfeasance in public life. The conclusion of the pessimist, too, is possibly correct, for all this smoke certainly means some fire; but it is scarcely fair to pass judgment in this case without considering the unpublished virtues of the common people.

It is also unfair to hold the school solely responsible for all the frailties of citizenship. The home and the church are the centers of the nation's religious life, and must therefore share this responsibility with the school. The state too must bear its part. It licenses the saloon, permits the prize fight, tolerates corrupting lobbies, smiles at social evils, winks at political vices, and often moves with a snail's pace in punishing rich offenders. But while this is true, it is right and proper to hold the school responsible for the size and the value of the contribution it makes to civic intelligence and civic integrity.

But if the school is not fully meeting the demands of modern citizenship, even the adverse critics must admit that through the lessons, the methods, the management of the school, the games, and especially through the personality of the teacher, the ethical nature of the child is trained and the individual prepared in a measure at least for the responsible duties of citizenship.

But in spite of the good ethical work of the school there is a demand for a higher type of civic integrity. American citizenship needs more oak and less straw in its fiber. The manhood of the nation needs more iron in the blood, more wisdom in the head, more honesty in the heart, more spine in the con-

science, and more moral courage in the soul. So urgent and universal is this demand that an international association for the promotion of moral training in the schools was formed in London last summer.

This demand is especially urgent in our own land. James Terry White says the crying need of the country is not "more law and legislation, but greater virtue and more individual integrity." Dr. A. D. White recently said, "The great thing to be taught in this country is truth; simple ethics; the distinction between right and wrong." And for the welfare of the state, the president of the United States is urging the importance of a "square deal" and a nobler quality of personal integrity. Everywhere we are brought face to face with this demand for a higher type of moral excellence in the individual, and educators are earnestly asking how the school can do more than it has yet done to give the intelligence and the personal qualities for citizenship?

The first question to confront us at this point is the question of methods.

Shall morals be taught directly? Shall we have a system of ethics and a code of morals taught directly in formal textbook lessons, or shall all moral instruction be given indirectly through the ordinary work of the school?

Existing conditions fully answer this question. By the indirect method we have accomplished much, but the results are still so unsatisfactory that there is certainly a demand and a place for direct moral instruction in our schools.

In our study of the subject assigned to us, however, we shall keep in mind mainly the indirect methods by which the end may be attained. This subject suggests the personal intelligence and the personal integrity of the individual. Our discussion, therefore, at this point naturally divides into two parts:

1. What kind of knowledge contributes most to citizenship and how may the child acquire that knowledge in the school?

2. What personal qualities will enable the individual to use this knowledge in the highest interests of the state; and how may the school best build these qualities into the character of the child?

In answer to the first question, Mr. Adler suggests that the three great elements of civic duty are law, punishment, and nationality. If these three fundamental ideas constitute the elements of civic duty, then the knowledge that clusters around them ought to contribute something to citizenship.

Various answers may be given to this question, and yet in a general way the knowledge most helpful in the discharge of civic duty may be designated as follows:

1. An intimate knowledge of American history, including the personal elements that stir the hero-worship of the child and awaken his patriotic emotions. Dr. Jewett, headmaster of Balliol College, Oxford, says that "in the future morals will be taught only through biography."

2. A definite knowledge of how the state legislates and exercises control through the local, state, and national governments seems essential to good citizenship. This knowledge may be best acquired, possibly by actual practice in the school municipality, the school legislature, and the school senate organized according to the plans of the George

Junior Republic. This will give the facts, and, far more important, the spirit of American civic life.

3. A knowledge of the institutional life of the state, including the origin, growth, purpose, and worth of our free institutions. Our national spirit and our national genius in government must spring primarily from this knowledge.

4. A working knowledge of political science, including the most important safeguards of civil liberty as embodied in our Constitution and fostered by our free institutions.

5. A knowledge of the principles of sociology and economics seems desirable, too, since most of our political questions are of a sociological or an economic nature.

These five fields of knowledge seem at least to include some of the "fat things full of marrow" upon which the future citizen could profitably feed.

We know it is not possible because of the nature of these subjects and the crowded condition of the curriculum to bring this knowledge completely within the limit of public and high-school instruction. And yet the studies of history and civics, especially in the high school, could be made to include much of this important subject-matter.

1. The first objection urged against teaching these subjects more fully in the school is lack of time. But if our school histories would eliminate the sickening details of war and battle, so undesirable and of such doubtful moral worth, there would be abundant space left for the personal elements in biography that help to make great souls of a good quality by filling them with nobler thoughts and inspiring them to more heroic action.

In certain high schools time for these important studies might be found in another way. Latin is the major study of the high school. It has been the backbone of Anglo-Saxon culture for five centuries, and it is likely to remain its essential element in the civilizations which are to follow. It demands much time, and to the student who takes a complete course it gives a large measure of culture and a valuable mastery of the resources of one's mother-tongue. Not so, however, to the student who takes a limited course and whose acquaintance with Latin literature is confined to a scrappy knowledge of two or three books of Caesar's *Commentaries*. To him it gives little in return except that vague something that is called discipline. This is not the age of the Renaissance, and citizenship, not classical culture, is the aim of the high school supported by the state. The dogma of formal mental discipline too is generally discarded. If this is true the schools that do not prepare for college might omit Latin and football and substitute civics and political science. If these subjects are well taught, possibly the graduates would have just as much discipline, and, in addition thereto, the knowledge that leads the way to a nobler and better citizenship.

2. The second subdivision of our subject relates to civic virtues and the methods by which they may be trained in the school. The personal qualities that contribute to character are many, but the virtues that are the cornerstones of citizenship and on which these qualities rest are few.

1. The first of these civic virtues is common honesty. As a personal asset this virtue is of first importance. The undue influence of money in politics

is a crying evil of the day. The barrel is the arch enemy of the republic. When it contains beer intended to buy votes, it pollutes the stream of civic life; but when it contains money intended to buy party nominations, it poisons the very fountains of civic virtue. The traitor betrays his country and gives aid to the enemies of the state; but the politician with the barrel taints the life blood of the nation, saps its vitality, corrupts its morals, destroys its manhood, debauches its electorate, and makes traitors to the state of all who are weak enough to be bought for a price. Election frauds, graft in public life, political machines, corrupting lobbies are due mainly to the illegitimate use of money in politics. And the legal right to the throne of power from which trusts, corporations, and demagogues rule with an iron hand is often purchased with gold.

In fact most of our political evils have their taproot in dishonesty. They owe their presence to the absence of moral integrity in the individual. Unscrupulous money-users in politics could never carry on their nefarious business if there were no unscrupulous money-hunters among the citizens to help them.

Common old-fashioned Puritanic honesty, that has sufficient strength to stand upon its own legs without being propped, is not a panacea for all the ills of political life, but it would cure some of them. It would at least help to restrain the greed and shackle the cunning of those lords of gold who expect to buy unjust privileges secretly.

2. A second civic virtue that would help the individual citizen to serve the highest interests of the state is moral courage. Honesty without moral courage will not accomplish the purpose. Political evils are intrenched behind the ramparts of vice, secrecy, corruption, legislation, and party platforms. In the presence of these evils the citizen should be a man of courage and conviction. With such men the political boss may frown and crack his whip; the treacherous demagogue may fawn and flatter; the ward heeler may rage and rant; the machine may threaten; the party leader may croak of party fealty; but the citizen of conviction will be swayed by none of these. Intelligence is the polestar that guides the civic mariner; honesty is the compass by which he keeps the ship true to its course; but moral courage is the engine that propels it onward. Intelligence knows the right, honesty loves the right, but in the face of temptation it requires moral courage to do the right. The old adage was, "He who hesitates is lost." In modern politics it may be written, "He who hesitates is bossed."

3. A third civic virtue, as president Roosevelt suggests, is the saving quality of common-sense. It differs somewhat from intelligence and is practically synonymous with political wisdom and good judgment. It is the power that enables the citizen to weigh the claims of rival policies and political platforms, to detect political shams, and to select what is just and right. Common sense and good judgment are especially needed in these days of reform to select and inaugurate the necessary remedial agencies that will raise actual political conditions toward the ideal. Little progress will be made in civic

reforms if the citizen is willing to follow the idle dreamers, the visionary theorists, and the political fortune-tellers who may for the time pose as the oracles of political wisdom.

There are other civic virtues that will add to the personal qualities of the ideal citizen, but honesty, good jugdment, and moral courage are essential. These virtues are the cornerstones of good citizenship, and the moral structure founded upon them will weather all ordinary storms.

It is to be noted, too, that faith in the honesty and moral courage of the individual commands the highest rewards the American people can bestow. It made Folk governor of Missouri; Hughes, governor of New York; Pattison, twice governor of Pennsylvania; Roosevelt, president of the United States. And it is these civic virtues that are today making the president one of the most noted characters that ever stood in the forefront of the world's history.

There yet remains for us to consider the methods by which these so-called civic virtues may be incorporated into the life and character of the future citizen. In this it is difficult to designate definite lines of action, and yet in every effort to give moral instruction, whether it be direct or indirect, two principles are fundamental:

1. Moral training must call into exercise the virtues it would inculcate. Exercise is the universal law of development. On the physical side it gives strength of muscle; on the mental side, strength of mind; on the moral side, strength of character.

A virtue is a fixed habit of doing right; a vice a fixed habit of doing wrong. All habits are the results of oft-repeated acts. And whether these acts spring from imitation, or are the direct result of thought, every repetition of them tends to fix the habit upon the child.

But inherited tendency and impulse are often as much the source of a child's actions as either example or thought. Blood tells. It writes much of the story of every life. The tides of heredity empty their currents of strength or weakness, purity or poison, into the human soul to aid or retard its moral development.

When heredity retards moral growth the task is doubly difficult. The aim is not only to develop the good, but also to eradicate evil; to prune evil desires, check evil impulses, and suppress evil tendencies. But whether the problem is viewed from its positive or its negative side, the law of exercise is equally applicable.

Every day affords numerous opportunities for the exercise of this law; occasions when the pupil may be honest or dishonest, truthful or false, generous or selfish, candid or deceitful, morally courageous or cowardly. And the teacher who would do most for the future citizenship of the nation should not permit these opportunities to pass without requiring the child to exercise these so-called civic virtues.

2. The moral training that best prepares for citizenship must, within certain limits at least, leave with the pupil the right of choice. A vice or a

virtue is a fixed habit; but there was a time when the first act was a matter of choice. Man is a free agent; as such he has a moral right to select his courses The state permits him to do so, but holds him responsible for the choice he makes, and for the acts that spring from that choice. .Morality is positive—it is will flowing thru the channels of choice and expressing itself in action. And the largest growth toward ideal self-government and ideal citizenship can never come to the child who is the creature of coercion and who has been robbed of the God-given prerogatives of choice and initiative.

This law of choice must be applied with sense and judgment in the school. For the good of society the state by prison bars often restricts the liberty of the individual, but the masses are free. So, in school, the pathway of the child must often be prescribed; but too much coercion retards the growth of self-government, robs the child of the right of initiative, takes from him the principle of choice, and turns obedience into slavery. This gives in place of moral integrity a sham substitute that is too frail to stand the tests of modern citizenship. Serfs by edict may be made freemen in a day; but that gives only the right, not the power, to govern themselves. So children under czar rule, who have never been permitted to exercise the power of choice and initiative, may emerge from the school with the rights of citizens, but with little power and little inclination to exercise these rights for the good of society. Self-government is a matter of the will. And wills that are to exercise self-government may be bent, but they must not be broken.

Much of the old-time school discipline is autocratic and un-American. It is monarchical rather than democratic in its tendencies. It trains serfs that must be controlled rather than freemen capable of self-government.

Enthroned authority in the schoolroom is not tyranny. It is unwise in the state to clothe one individual with legislative, judicial, and executive power. And yet this is practically what we do in the school. The school is an unlimited monarchy, with autocratic power in the hands of the teacher. He enacts the laws, tries the cases under them, sits as prosecutor, judge, and jury, and then executes the findings of the court. Such a form of school government is not in harmony with the ideals of democracy.

The child must learn to obey. But obedience without the element of choice in it is slavery. We must distinguish clearly between rightful authority and tyranny, and between obedience and slavery. A prompt and willing obedience to the requirements that seem wise, just, and right to the child contributes both to his respect for law and his growth in character. But tyrannical requirement of what seems unfair and unjust freezes the currents of love and respect, turns obedience into bondage, and robs compliance of the element of choice, the most valuable of all the factors in the development of self-government and character. Obedience is half the religion of childhood; but it must be a religion of choice, not coercion; of love, not fear; of self-surrender, not servitude; of willing compliance, not of wilful compulsion.

If this is true, the school management and the school discipline that do

most to incorporate these civic virtues into the character of the child should counsel, advise, suggest, encourage, and direct, rather than coerce. They should point the way, touch the child's emotional nature, appeal to his sense of honor, and challenge his loyalty to justice and right; but as far as possible leave with him the matter of choice. Without this right, authority degenerates into tyranny, and obedience into slavery. And the slave who does right because he must deserves neither commendation nor reward, and his forced action contributes nothing to his moral growth.

In training for citizenship, the law of choice and the law of exercise are fundamental. A citizen is honest because as a child and as a man right feelings of justice have often caused him to reject dishonest practices. He is truthful, because his feelings of right have often caused him to reject falsehood. He is unselfish, because feelings of sympathy have often led him to acts of generosity. He has the courage of his convictions, because his sense of honor has often caused him to turn his back on moral cowardice. In short, any civic virtue is the result of choosing and doing the right when the individual might have done otherwise.

It is not difficult to see the importance of direct moral instruction in determining choice. "Thou God seest me," is a great restraining moral influence. And if the citizen who stands at the parting of the ways, who hesitates in his choice between right and wrong, can at the crucial moment quote a suitable text, a moral maxim, a principle of ethics, or even a proverb heavy with the weight of the world's wisdom, it may help him to select the right and reject the wrong. And it is one of the provinces of direct moral instruction to put the child in possession of a body of moral truth that will act as a balance to his moral judgment and help him in the hour of temptation and doubt to decide aright.

But in all moral training whether direct or indirect, the teacher should note two facts: First, the end of moral training is more than an intellectual grasp of moral principles. Moral instruction must filter through the intellect into the emotions. It must touch the child's interests, arouse his feelings, awaken his desires, appeal to his motives, and stimulate his activities in such a way as will result in choice, action, conduct, habit, and character. Second, the best way to teach a subject is not to preach it. For this reason, teaching morality should never degenerate into preaching the subject.

We have tried to show that the fundamental civic virtues are honesty, moral courage, and good judgment; and that their growth in the individual depends mainly upon the law of exercise and the law of choice. Let us now inquire to what extent manual training operating through these laws may be made a means of civic training.

Psychologists tell us that a persistent application of means to an end is an excellent way to strengthen a weak will. This requires continuous interest and demands coherency and continuity of thought, and thereby sustains that exercise of the will by which it is strengthened and developed.

Mr. Adler says manual training fulfils these conditions better than the study of textbook abstractions. Let a boy, for example, make a sled. The work must be planned, the lumber planed, the boards cut, the runners shaped, the parts adjusted, and all put together, braced and unified in one complete thing. This requires the work of several days, but the interest never flags. Coherency of thought is prompted by tangible things—by the fitting of part to part as the work proceeds; and, by a patient adjustment of means to an end, the mental and physical effort gives that tenacity of purpose, that persistent application, which are only other names for strength of will. Morality is something more than kind feelings. It is the will expressing itself in right action. Strength of character derives much of its stability from strength of will. And since manual training promotes the latter it is an important factor in the development of the former.

But manual training possibly has a more direct influence upon the development of these civic virtues. Dishonesty is an act which one individual commits against another. It follows that through deception and misrepresentation one may teach this vice to many. But material things are always truthful, accurate, and honest. Wood, for example, receives, records, and retains with absolute truthfulness and honesty the effects of the saw, the hammer, and the chisel. Manual training teaches neither deceit nor misrepresentation, but rather it inculcates the virtues of caution, accuracy, truthfulness, and honesty, so essential to citizenship.

It is possibly true, too, that manual training, which calls for the exercise of the mind upon visible things, is helpful in the development of the common-sense and good judgment of the child. These qualities are not the direct results of scholastic knowledge: they are not always the gifts of the school or of profound learning. On the contrary, the mother in the home, the farmer in the field, the mechanic in the shop with little scholastic training, may have a larger measure of ordinary common-sense and good judgment than the scholar who speaks a dozen languages and who is able to discuss intelligently the most abstruse questions in philosophy. Indeed the absurd theories and suggestions attributed to some scholastic minds are the laughing-stock of the common people who are well ballasted with common-sense and good judgment.

The ordinary school course appeals but slightly to the child's observation. It does not sufficiently require the exercise of the mind in judgment upon visible things. On the contrary, it feeds him mainly upon concepts thought out by other minds and recorded in textbooks for his convenience. It presents the abstract, invisible relations of facts that some other mind has perceived, and asks him to understand them. To many this does not seem the best way to develop the powers of observation, perception, insight, intuition, and judgment.

If this conclusion is correct, possibly a little more industrial work in the schools—work that exercises the mind directly upon visible things—would help to give to the future citizen the perception of actual conditions, the insight

into existing relations, and the well-balanced judgment that would prepare him to weigh the claims of policies and platforms, to detect political shams, and to select what is wisest and best for the state.

Then, too, manual training by giving love for work and habits of industry to the individual aids materially in training for citizenship. Work never degrades; it rather dignifies and ennobles the worker. The idle loafer is a menace to law and order and an element of danger to the republic. His idleness and consequent indigence make him the especial prey of the man with the barrel. As the buzzards gather around the carrion, so the idle loafers as the political scavengers of the body politic gather around the coin distributer. But the working man with common-sense and sterling character is the hope of the nation. Work is thus a cardinal virtue. It emancipates, raises, ennobles, civilizes the individual, and prepares him for citizenship. And if he is ever to build for himself that most beautiful of all temples—nobility of character—and dwell therein as an ideal citizen possessing a great soul of a good quality, honest industry must lay its foundations, lift its walls, arch its ceilings, sculpture its marbles, tint its frescoes, round its domes, and point its spire heavenward.

If these conclusions are correct, if industrial training is helpful in the development of honesty, truthfulness, accuracy, and good judgment in the individual, then the interests of good citizenship require that such training should have a more prominent place in the schools supported by the state.

In the matter of making school curriculums that look toward citizenship, possibly we have some things yet to learn. The average high-school course would suggest that we are still living in the period of the Renaissance, rather than in the age of science, and that the dogma of formal mental discipline is true. We worship at the shrines of the past and neglect the altars of the present. We crucify living issues and deify dead ones. We enthrone culture and ignore utility. Many courses of study present the civilizations of Babylon, Greece, and Rome, to the neglect of our own. The student must study the methods by which the ancient temples were lighted to the neglect of the modern means by which the electric current illuminates his own home. The mechanical construction of Cæsar's bridge over the Rhine, as Dean Woodward suggests, is more important than the splendid span over which the pupil goes daily to school. Pupils must spend so much time in getting a smattering of a dead language that they have no time to master the beauties of the mother-tongue. We batten the children on the husks of the things that were and ignore the study of living issues. The modern magazines fairly teem with the up-to-date discussions of civic purity, child labor, prison reform, and municipal sanitation. They discuss fully and freely the tyranny of trusts, the evils of taxation, the corruption of municipal life, the problems of socialism, the ownership of public utilities, and all the civic, social, industrial, and economic questions so closely allied to citizenship. Common-sense challenges, utility pleads, necessity urges, and citizenship invites, but we are so busy that we have

no time for them. In short, we give so much attention to classical culture, dead issues, ancient customs, extinct civilizations, and abstract generalizations that we have little time for the civics, political science, the industrial work, and for the great problems of the day that make for citizenship.

But these conditions will not always prevail. Public education is the organized effort of the state to make a better citizen. To this end we must not forsake the past nor forget the present. But clinging to what is good we must add to the curriculum the subjects that will give the desired civic knowledge. And far more important than this knowledge is the moral training, both direct and indirect, that will lead the individual to use this knowledge in the highest interests of the state. Civic character is the supreme end of public education. For manhood is better than knowledge, integrity is better than wisdom, goodness is superior to greatness, and the soul of the citizen outranks his intellect as gold outranks the dross. Character overtops all titles, caps all careers, crowns all virtues, and is the sum total of all the qualities that give dignity and moral worth to the citizen. And the school will not fulfil its highest mission as an institution of the state until it gives these two qualities in the fullest measure and thus accomplishes its complete purpose.

PROBLEMS OF GREATER AMERICA

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[*An Abstract*]

The statesmen who opposed expansion, however astray in other regards, have proved quite right in prophesying that our new national path would be thorny. It has pitfalls on both sides and in front. Vexing problems confront us, that will not down, yet are bitterly hard to solve.

A better diplomatic service is greatly needed. The United States has never been strong in this branch of statesmanship and has often suffered because of such lack. Now, our multiplied possessions bringing us into more numerous relations with other countries, this shortcoming becomes vital. More attention must be paid to the means of rearing and educating diplomatists, men skilled in international law and practice, at home in modern history, and acquainted with the most prominent public men in all the foremost lands. John Hay was the sort of diplomat I mean. May his example be prolific.

We have only begun, not completed, the work of providing model government for our colonies. The United States is a colonial power like Rome of old and England in modern times, nor is it absurd to suppose that we may improve upon those exemplars in the just ruling of dependent peoples. If we ever cease being a colonial power it will not be in the lifetime of any hearing me tonight. So far as our epoch is concerned, whatever party is in power, one of the great tasks incumbent on us will be to see how equitably, smoothly, and humanely subject races can be governed.

We must not make the mistake, which Great Britain made in French Canada and in Dutch Africa, of trying to enforce the use of English. Also steer clear of all unnecessary offense to religious ideas and usages or to social customs. Leave much to the natural force of civilizational ideas. Secure justice between man and man; further education; make life and property safe. Traverse native notions and habits so far as is necessary to compass those ends, but no further.

Above all, train for self-government. Let none of the difficulties now facing us in the management of our Philippine and Porto Rican wards lead us to lower our aim or the dignity of our undertaking in their behalf to lead, educate, and train them till they are in condition to govern themselves either under the flag or out from under the flag. May the thought of tolerating a crown colony like India, the people without part in their own government and without hope of attaining such, never find support in this country. Some tribes under the flag may need a hundred years of schooling before they can be granted autonomy but let the hope of it be theirs every step of the way.

For the most part we have asserted and maintained the Monroe doctrine without any sense of the responsibilities involved, a dog-in-the-manger policy. Roosevelt was the first president to acknowledge distinctly these responsibilities. It will not do to forbid other nations attempting to aid progress in Central and South America unless we offer such aid in every way. If we continued to stand off and ordered others to do so, the best moral sense of the world would condemn us and approve intervention by progressive European powers. We should then have to give up the Monroe Doctrine or fight to maintain it.

The president deserves support in San Domingo, risky as his course certainly is. If persisted in, no doubt that policy will sooner or later give us practical suzerainty over San Domingo, Venezuela, and perhaps other states, such as Great Britain exercises in Egypt. But if you thwart the President, taking the stand that we cannot have aught to do with San Domingo's or any other state's internal affairs, European nations will immediately take post in San Domingo and at some rate or other do what Mr. Roosevelt is attempting. The same will happen a little later in Venezuela. That is, European powers, one or more, will be planted in America, and your vaunted Monroe Doctrine will have gone by the board.

A problem of the utmost importance relates to the position of the United States on the Pacific Ocean. We have a longer Pacific coast line than any other nation, and behind the best part of it in our Pacific states a great civilized empire. This section of our dominion is not adequately protected. When the Isthmian Canal is done, our Pacific coast is almost as vulnerable to European navies as our Atlantic coast. True, there is now no prospect of trouble between us and any European government, but no one is wise enough to assure us that this happy condition will be permanent.

One could name a number of possible happenings or conditions any of

which might occasion war between us and some transatlantic power. Our commercial or tariff policy might set things ablaze. Mismanagement under the Monroe Doctrine might.

No doubt peace sentiment has made great progress in Europe of late, but it has made none among our Pacific neighbors, the Japanese, the Chinese, and the Russians, all of whom are very near us to the west. The Japs, of course, will not make war upon us over the San Francisco school difficulty, but their readiness to assert themselves and to parade what I must call a very doubtful right of theirs shows a certain sauciness with which we shall have to reckon sooner or later.

It is a great mistake to think Russia disposed of as a Pacific Ocean factor. She has given up Port Arthur but not Vladivostok, which is on Pacific water that never freezes enough to interfere with naval operations; nor is it absurd to suggest that Port Arthur may in no very long time be again in Russian hands. The last war with its defeats did not in the slightest change Russia's Pacific ambitions. She has only drawn back to jump farther at the next attempt.

It would be erroneous to regard this country as safe from Russia and Japan because of their hostility, out of hope of using one against the other. Nothing would be more natural, considering all things, than for these two powers, fierce as their hate is now, to make common cause for the division of China, together defying us and the world. They both covet China and each is in a way to dominate large portions of that empire. A similar conspiracy, involving the temporary co-operation of rival nations, has twice availed to partition Poland. Russia had a hand in that crime and has not forgotten.

Suppose China remains intact but untutored, save by these Asiatic neighbors, China itself may easily threaten our peace. The military power of China, roused, drilled, marshaled, and led, is frightful to contemplate. China could on provocation furnish again infinite hordes such as Jenghis Khan led into central Europe centuries ago. He lost without minding them 5,000,000 men, filling, at the one battle of Liegnitz, nine sacks with the right ears of slain enemies, and countermarched, not because beaten, but recalled by the death of the Great Khan at home. And this China with its appalling ability to overrun, to crush, to work world-devastation, China, our rival in the Pacific and so near, does not love us at all; and is subject to the influence of two other immense and warlike nations, both near us, two rivals of each other, it is true, but each a rival of ours. No patriot knowing aught of history or of man can deny that here is a situation calling for solicitude and preparation.

We need new strength on the Pacific, its islands and its shores, even if we meditate naught but self-defense. But there is another duty. The future of China depends eminently upon us. If we remain apathetic touching Pacific interests, saying: The Atlantic is our ocean; its interests suffice us: what care we for things so far west! mark my word, the Jap or the Muscovite or the two together will determine China's future and it will not be very high

or worthy. If, however, we by our attitude, utterances, and acts, without braggadocio or belligerency, yet firmly, say to all the world: We are a Pacific Ocean power and shall defend and use our rights and influence on that splendid ocean in every legitimate way within our means, Muscovites and Japs will attend, with the benign result that China will be free to develop the enormous slumbering good her civilization contains and to complete the same by adopting the best culture that the United States and Europe can give.

WHAT FRACTION OF THE PUPILS IN OUR SECONDARY SCHOOLS CANNOT DERIVE COMPENSATING ADVANTAGES THEREFROM?

W. J. S. BRYAN, PRINCIPAL OF CENTRAL HIGH SCHOOL, ST. LOUIS, MO.

The question under consideration is the ability of pupils of secondary schools to profit sufficiently from their connection with the school to make it worth while for them to remain in it. What percentage of high-school pupils have reached the limit of their education on account of natural capacity or defective previous training, and are therefore wasting time in a vain attempt at self-improvement? There is a wide difference between the number of pupils who cannot derive compensating advantages and the number who do not make the most of their opportunities through indifference, or lack of application, or social distractions, or disinclination to exert themselves.

The consensus of opinion of twenty-five principals of high schools in the larger cities is that only a very small percentage of pupils cannot profit from attendance, however many might derive greater benefit.

The period of development.—The duration of the period of development increases as the animal rises in the scale of being. The inference to be drawn from this fact is that the higher the stage of civilization attained by any people, the longer the period of preparation must be for the young of that people who are to fit into that civilization and to intelligently carry it forward to greater heights, if the biological analogy holds, and the individual in his mental and spiritual development is to pass in succession the various antecedent stages.

The need of more scholastic education than can be secured in the eight years of the grammar school is now generally conceded. The consciousness of this need is shown by the establishment of high schools in every city of the land and by the very general demand for the provision of like facilities of education for the rural districts through consolidation and transportation of pupils to a centrally located high school. The recognition of this imperative need has been fixed in the consciousness of the people, if we may judge by the large increase in the number of secondary schools and pupils.

The proportion of educable pupils.—The proportion of the educable increases with the growth of the art of teaching, and the adaptation of courses of study to the capacity and stage of development of pupils. The failure to

reach individual pupils by a given method or mode of presentation does not suggest to the wise teacher hopeless density, but rather the need of different or special treatment to be determined by study of pupil and accurate diagnosis. The pupil is to study the subject; the teacher is to study the pupil in order to teach him through the subject as a means of education. The self-activity developed in the pupil is the measure of the teacher's skill and the evidence of his success. It will not be safe for the teacher to conclude that the pupil who fails to grasp a subject carefully presented is lacking in intelligence. The real problem is how to make such a presentation of a subject as will stimulate the mind of the pupil to appropriate it. There is reason to believe that in the spiritual realm, as well as in the physical, action and reaction are equal, and it will be well for the teacher to assume the truth of this law. It is natural for teachers to commend themselves for skill when they succeed in conveying their ideas to others readily and forcefully, and to attribute their failure to communicate a thought to another to the dullness of the other in comprehension and not to their own poverty of expression or inadequacy of statement. Are we not able to draw from our own youthful experiences evidence of great disparity in the ability of teachers?

For each pupil the fixed quantity is his own capacity or need, the variable is the ability of the teacher to meet the need. Whatever the state or condition of the pupil, the remedy is to be sought and applied by the teacher, if the desired result is to be secured. To take this view of the relation of teacher and pupil is to magnify the teacher's office or function.

Who are entitled to secondary education?—There has been a development in the ideas of the public as to the extension of the privileges of education. Early in our history leaders of thought saw the justice and the wisdom of making a broad highway for the passage of those who would ascend to the heights of the university from the first level of the primary school. All are familiar with the great conception of Thomas Jefferson, including in one complete system of public education all stages, from the lowest to the highest, a conception now practically realized in many states of the Union. But the legal right does not give the individual ability to exercise it, and there may be those who fail to avail themselves of their legal right because of limited capacity or because its exercise would be too costly. To determine whether the individual can derive compensating advantages from attendance on a secondary school we must ascertain the cost of attendance and the advantages to be derived. What, then, is the cost of attendance? To the pupil, in time, at least four years, from fourteen to eighteen or nineteen; in money, approximately five dollars a week, or one thousand dollars in all—about enough to feed and clothe him. This expense, if the pupil goes to school, will, in most cases, be borne entirely by parents. What is the annual cost to the public per pupil enrolled in the high school? Approximately, $60. These two items, the earning capacity of pupils and the cost to the public for tuition, constitute the total expense of a high-school education, in all about twelve hundred and

fifty dollars. The public should receive compensation for its expenditure; the pupil, for his time; the parent, for his outlay. The public will expect return in the shape of better citizenship, clearer conceptions of duty to the state and society, higher ideals, and worthier lives; the parents will expect for their return the satisfaction of seeing their children respected, useful, and contented; the pupils will expect to mingle with men and find themselves prepared for the duties and responsibilities of life, able to sustain themselves with dignity and satisfaction, adapted to participate in the enjoyments of refined and cultivated people.

School days a part of life.—Is the time spent in school to be subtracted from the years of life as though it were merely a preparation for living and not an actual part of life? The importance of a right view of this question to a correct estimate of the cost of secondary education to the pupil is apparent. The frequent repetition of the statement that school is a preparation for life has left the impression that it is nothing more. The Greek derivation of the English word for school is suggestive of the correct view: school, a place of leisure; school-days, a time of leisure for growth and development, physical, mental, spiritual, as contrasted with other periods of life, in which heavy draughts of time and energy are made for means with which to satisfy physical wants. School is, indeed, a place of preparation for maturer life, and youth is the time for such preparation, but it is also the time in which the forces of life are most actively engaged, not only in supplying the place of outworn material, but also in developing the whole being, bringing every organ to its perfection and full power. It is the time in which the call to activity of every kind is the loudest and most insistent. It is the time in which the acquisitive power is strongest. The curiosity of children is proverbial, and youth is eager to learn. All young animal life delights in activity for its own sake, but this delight is increased when some definite, desired object is in view. The doctrine of interest is based on this fact, and the school appeals to this natural desire to become acquainted with one's environment and to adjust oneself to it, so as to work in it and through it or in spite of it. In no sense, except the commercial one, is the pupil of the secondary school unable to live what is for him the fullest possible life, while consciously or unconsciously preparing for the duties and responsibilities of maturer life. And in the commercial sense, he uses this period in the storage of present energy for future use as motive power and in the creation of a sinking fund to accumulate until its earning power shall be sufficient for a specific object.

Value of a part of the course.—Is a part of the course of study of secondary schools of no value or of less than proportionate value? To complete the course of study requires ordinarily four years of work. It seems so desirable that all this should be done, that there is a distinct feeling of disappointment when a pupil withdraws before graduation. Attention is directed to what might have been done, and we are in danger of overlooking the work already accomplished. Yet, if the sequence of studies is properly arranged, drop out

where he will, the pupil will have done all that he could in the time given to the work. To credit this is hard for both pupil and teacher. The pupil who finds that he cannot complete the work provided is ready to drop out sooner than is necessary, and often deprives himself of the advantages of such attendance as he could have given. The parent, disappointed in the accomplishment of his child, is unwilling to allow him even the allotted time, because, forsooth, he has shown especial need of more than the usual allowance. The teacher, distressed by the early withdrawal, is not consoled by the thought that the pupil has had three-fourths, or five-sixths, or eleven-twelfths of the whole course provided. He has watched the development of pupils during the last years of their course. He has noted the effects of these years, and feels keenly the deprivation suffered by the pupil. Of late years emphasis has been laid upon the value of college education, and rightly; but as a result, there is a feeling of disappointment if one who has done the preliminary work is disinclined or unable to take up more advanced work. The result of this growing recognition of the advantages, or rather need, of a longer period of development, has been a greatly increased percentage of pupils passing from grammar school to high school and from high school to college. On the other hand, however, the effect of any number of years of education in the schools is so valuable and so evident that it must not be disparaged. Better sixteen years of education in the schools and colleges than fifteen or fourteen, but better still ten than nine, or eight than seven.

Value of low-grade work.—Is the work of the pupil who fails of promotion of no value? In my own high-school days, classes were a year apart, and to fail in one subject was to review all. Moreover, the required evidence of preparation for more advanced work was the passing of an examination in each subject, covering a year's work. Now classes are only half a year apart, and progress in each subject depends solely on work done in that subject. Moreover, the daily work, together with five weeks' written tests, determines the advancement, if the work is of a certain quality, and a term examination may be had in doubtful cases. The latter method recognizes all work well done, so far as is consistent with half-year grading; but even with such an arrangement, failure does not show that no work has been done, or even that no good work has been done, but only that the amount of work required for promotion has not been done, and if the pupil were to stop at that point, the difference in the advantage derived might be inappreciable by any system of measurement. The distinctions made for purposes of grading, while necessary for the successful conduct of a school, may not be of more general application. The relative or absolute value of the educative process as it acts upon the individual cannot be estimated in per cents. or in any arithmetical way. Nor can the benefit to be derived from secondary education by one pupil be measured in terms of the accomplishment of another or of the hypothetical or imaginary pupil.

Early withdrawals from school.—A reason frequently assigned for the early withdrawal of pupils at various stages of progress is the want of adaptation

of the course of study to the individual needs or the faulty methods of presenting the several subjects to the pupils. Undoubtedly much is still to be learned of the art of teaching and more of the science of teaching. Teachers do not know the effect produced by each study upon the development of mind in general or of the particular mind of the individual pupil. Education has been more a teaching of subjects than a training of pupils. Teaching has been more a matter of intuition than of conscious method. The value of different branches as tools of education is yet largely to be ascertained and stated, and its discovery and expression will give new direction and efficiency to teaching.

Meanwhile an extended and careful study of the statistics of school attendance has led me to certain very definite conclusions as to some of the reasons for the facts observed. It appears that the most potent factor in the withdrawal of pupils is the occurrence of the long summer vacation, which interrupts habits of study and diverts attention to other interests and results in the loss of nearly twice as many pupils as would have dropped out at the same stage of progress if it were reached in the middle of the year rather than at the end. For instance, the loss at the end of the first half-year, if the pupils enter in September, is only fifteen per cent., but increases to twenty-nine per cent. if they enter in January, so that the long vacation follows the completion of the first half-year. In all parts of the course, whenever the long vacation occurs, there is a greatly increased withdrawal. The average percentage of loss by withdrawals at the various stages of progress when followed by the long vacation has been fourteen per cent.; when not so followed, seven per cent. My deduction from these facts is the inference that a large part, at least one-third of the withdrawals, are not attributable to dissatisfaction with the course of study or to discouragement of pupils by difficulties encountered, or to any other cause than lack of persistency or tenacity of purpose, for all other possible causes remain unchanged. The same lack characterizes most men everywhere and, as it were, stratifies them, determining the height of their rise. There is a decrease in the withdrawals as the grades advance. This decrease is attributable to the survival of the fittest, the most tenacious of purpose, and to their approach to the goal of their ambition. To increase this tenacity of purpose every effort should be made to discover to the pupil the advantages to be derived from the continued pursuit of his studies, a revelation more difficult because of the limited education of parents and the eagerness of both parents and children for immediate pecuniary results, which blinds both to ultimate gain, however great. The changing or changed views of the business community and the present attitude of approval of the work done by secondary schools as a preparation for business will go far toward changing the minds of over-eager parents and pupils.

This interpretation of the early withdrawal of pupils of the secondary school is the more reasonable in view of a like condition in the grammar grades, in which the exodus begins at the second grade and takes up its steady march at the end of the fourth grade. The increased loss between the eighth and

ninth grades is attributable to the transition from grammar to high school, which marks a new departure.

Commercial estimate of worth.—But the commercial estimation of the worth of an individual is a very imperfect index of the advantages to him of previous education, because it is based on only a partial inventory of qualities possessed, and "life is more than meat and the body more than raiment." Life is more than a living; a human being is more than a cash register.

What pupils are most in need of secondary education?—Presumably the students who make the best record might be supposed to derive the greatest advantages, but this is somewhat doubtful. I am not one of those who hold that class valedictorians and honor men generally are not among the strongest men in their respective classes, or that school estimates are generally unreliable and misleading. My personal observations and investigations preclude such a judgment. I am of the opinion that the best third of a class have less need of instruction or guidance or stimulation than the poorest third, and that these latter derive relatively greater advantages from their connection with the school. By this I mean that the native force, and energy, and tenacity of purpose of the best third of a class would insure their success, while the poorest third must acquire the elements of truly successful living from school training, or make a failure of life.

As a teacher I should not address myself to the most promising pupils, however delightful it might be to instruct such pupils, but to the less interested, less receptive, less responsive, with the thought that "they that are whole need no physician." The advantages derived by such pupils from connection with the school would be the greatest, though their records would not disclose the fact. There would be the greatest difference between what they would be without such education and with it.

Advantages of secondary education.—The advantages derived from secondary education may be described as (1) pecuniary, (2) physical, (3) intellectual, (4) social, (5) moral. They will be dependent (1) upon the content of subjects studied and the method of their presentation and upon the personal character, preparation, and skill of the teacher; (2) upon the receptivity and reaction of individual pupils, resulting from previous training, mentality, and spiritual attitude; (3) upon school spirit and the influence of the student-body; (4) upon outside associations and companionships and home influence.

Time would fail us to do much more than give a partial list of these advantages:

The discovery of fields of activity.
A juster estimate of the relative values of human effort.
The discovery of ability.
The training of powers of mind and body for rendering service of recognized worth.
A knowledge of the human body, and of the needs and methods of securing and preserving health and vigor.
Physical culture resulting in the development and conservation of energy.
An idea of simple mathematical processes and reasoning.

An introduction to scientific thought and methods of investigation, and to scientific achievement.

Acquaintance with the languages of other peoples, past and present.

Increased facilities in the comprehension and use of English as a means of expression of thought.

Acquaintance with literature.

Acquaintance with the lives of historic characters and inspiration to worthy living.

Appreciation of racial ideals as embodied in the conceptions of poetry and fiction.

Acquaintance with ethnic development.

Knowledge of the growth and present state of civilization.

Intelligent comprehension of the interdependence of men of all races, and of the real value and import of commercial relations as a means of exchanging the products of industry.

A conception of society as an institution for securing to every man participation in the achievements of the race on condition of his contributing of his own effort products of a value equal to that which he wishes to secure for his own use or disposition.

Knowledge of institutional life.

A knowledge of the source and significance of law and consequent respect for it.

Knowledge of social relations.

Consideration for the rights of others.

Experience in co-operation with others for the accomplishment of specific objects.

Comprehension and appreciation of all movements for the betterment of men.

Familiarity with the uses and requirements of organization.

Association with other pupils who constitute the most favored five per cent. of the pupils of the public-school system and of the youth of the community, with whom it is therefore a privilege to associate, a privilege not fully appreciated by those who enjoy it or by others.

Conclusions reached.—I am of the opinion, and I believe the subsequent lives of the most unpromising pupils will show that their connection with the right sort of a high school is of great benefit to them even if their record is not satisfactory to the school and their attendance is of only one or two years' duration. Again and again I have been astonished to learn that the subsequent record of pupils, whose presence was tolerated in the forlorn hope of their finding themselves and taking hold of the work with vigor, has demonstrated that they inhaled and absorbed more than seemed likely or possible. When the boy who has seemed stolid and irresponsive, lazy and slow of wit, and has made the minimum requirement only after repeated trials, shows after leaving school a large measure of power, and takes his place among men of ability as though he were prepared for the assumption of really great responsibility, is it not fair to conclude that his education was not the failure it seemed? When the boy whose presence has been unbearable by reason of wilfulness and shiftlessness is denied the privileges of further continuance in the school and goes forth into the world to meet its demands successfully, is not the teacher justified in congratulating himself that his work was not in vain, especially if the boy himself, having grown mature, gives the school credit for his ability to do his share of the world's work and thanks it for the discipline that made him realize the necessity of complying with the requirements of organization and of finding his place in the social order, if he would not "strive as doth a crock with a wall," or be crushed instead of borne along by the forces of civilization and order exemplified in the beneficent institution of the school, which is the embodiment of helpfulness?

No one believes more strongly than I do in the necessity of maintaining a high standard of scholarship or in the utter folly of allowing one who has failed

to do the work required at one stage of progress to take up the next task. Nevertheless, the ability to do is not always shown by the amount accomplished, and with rare exceptions, of doubtful existence, every pupil who gains admission to a secondary school whose entrance is properly guarded can secure compensating advantages from attendance upon such school, if it be worthy of the name. The opportunities are so abundant, the equipment so extensive, the personality and example of teachers so suggestive and helpful, the environment so healthful and invigorating, the spirit so pervasive, the atmosphere so charged with vitalizing, energizing forces, that it is hard to conceive of insulation so complete as to preclude the possibilities of effective influence.

DISCUSSION

J. W. Crabtree, president State Normal School, Peru, Neb.—Principal Bryan has taken the wider view of this question. He has not only considered the value of secondary education in its commercial aspects, but in regard to its physical, intellectual, and moral influence on pupils. Permit me to emphasize some of the points made in this excellent paper by presenting an imperfect study of a typical small high school in a somewhat typical environment, thus reducing the question for the moment to a concrete problem. I will limit my part in the discussion still further by considering it only from the standpoint of the pupil's welfare.

I must admit that I have spent some time in trying to draw upon my own experience for data that would enable me to find the fraction of pupils in one secondary school at least who have not derived compensating advantages therefrom. I could see no other way of getting actual figures.

I have gone for this data to a high school, which was located in a small town where I was very well acquainted with every pupil in the school, and, as a matter of fact, with everybody in town. There was a total enrollment of 328 different pupils in the high school during the six years covered by this investigation. I went over this list very carefully, picking out names for two lists: First, those who should have derived greater compensating advantages; and second, those whom we knew at the time to be getting no benefit whatever from the high school.

There were 63 names in the first list, that is those who ought to have gotten a good deal more out of the school than they succeeded in getting. I went over this list carefully to see if I had included in it any who should have stopped school at the end of the eighth grade. Finding none, I gave my attention to the second list—those who according to general belief had failed to get value received while in the high school. I found this list much shorter than I expected it would be. It contained these names: Isabel Jackson, Jared Splasher, Sara Spooner, and Charley Meeker—four names—giving one out of every 82 pupils, or the fraction $\frac{1}{82}$.

Then I wondered whether the twelve or fifteen years intervening since then would throw any light on the situation. While these boys and girls were without question a menace to the school, possibly they, themselves, profited more from the high-school environment than we were aware of at the time. I investigated the cases of two of the most hopeless, Isabel Jackson and Charley Meeker. I wrote Isabel's mother, calling her attention to my having advised her to take her daughter out of school. I explained that I was anxious to know whether I was right in my belief that it was a waste of time for her daughter to be in school above the eighth grade. If she felt that Isabel had profited from her high-school attendance, I would be glad to know what advantages were actually

obtained. I wrote a similar letter to Charley's father. Mrs. Jackson replied as follows: "I don't know just what Isabel got out of the high school, but I have just been over to her as she lives next door to me, and we both believe that the high school done more for her than the grades. She is in the society of people who have a good education, which is, I think, a right smart."

Charley Meeker was absolutely hopeless. He had already spent two years in the seventh grade, two years in the eighth grade, and two years in the high school, when I became acquainted with him. He spent five years in the high school without passing a single difficult subject, except the term that Mary Smith gave him passing grades, as she said, to get rid of him. He was always much attached to his lady teachers. He was usually in love with at least one of them. His sickening love glances were a source of much annoyance to his choice teachers. He proposed to three or four of the best-looking ones.

His father replied to my letter as follows: "I am glad you allowed Charley to stay in school as long as you did. It did him good I am sure. Now my daughter Kate was bright and gained a year in school, but I was as well satisfied with Charley's standing of 40 as I was with hers of 95. She never got below that. You see he didn't have much talent and she did—that is the difference. I guess it paid all right. He is doing well now on the Fowler place near town."

I happen to know that Sara Spooner married a farmer and that the family stands well in the community. She teaches a class in Sunday school; she seems to be a sensible woman. I rather think that she, too, must have gotten greater value out of the school than we were aware of. I have lost track of Jared Splasher. I have therefore reduced my fraction to $\frac{1}{8}\frac{1}{8}$, and were I able to find Jared Splasher, quite likely I would discover that he, too, had derived compensating advantages from that school, and I might be able to reduce the fraction still farther.

This was an average high school with average teachers in a community of average intelligence. It is likely that any such investigation in any other place would lead to about these same conclusions stated briefly as follows: A failure to make a passing grade does not mean that the pupil has failed to derive compensating advantages from the school.

It is just as unreasonable to expect large results when the pupil's talent is limited as to expect as large a return from a small amount of capital as from a large amount of capital. There are few, indeed, who, if capable of deriving profit from the eighth grade, would not also be benefited by attending a high school, possibly none at all. The high school has a much wider range of value to young people than teachers are in the habit of recognizing.

Whatever else determines the extent of the value of the school to the individual pupil, it is clear that the central vital fact is in the pupil's attitude toward the influence of the school. The degree of good that the pupil receives from the school depends almost wholly on the inspiration that the school puts into his life.

Francis G. Blair, state superintendent of public instruction, Springfield, Ill.—Injustice is done in our secondary schools as frequently to the bright third of the students as to the dull and average two-thirds. The agricultural college is showing us that the fertile, rich acres of Illinois have been sorely abused and maltreated because the farmers had gotten the notion that these acres would yield a crop with almost any sort of treatment. Scientific agriculture is showing these farmers that it requires the closest attention and the most detailed knowledge of the character of the soil in order to make these rich acres yield their maximum of productivity. I am inclined to think that it requires a higher grade of scholarship and teaching ability to develop the mind of the bright pupil up to its fullest capacity than to bring the mediocre child into his largest possibility. The function of education is to develop leaders. Out of this brighter third it is fair to suppose will come most of such leaders. The high school should see to it that the bright pupil gets a "square deal."

WHAT HAS BEEN THE EFFECT UPON THE INDIVIDUAL PUPIL OF THE MULTIPLICITY OF SUBJECTS OF STUDY AND THE REFINEMENT OF METHODS?

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The subject assigned me has been classed, by our worthy president, with the knotty problems proposed for this conference, and such I have found it to be.

It suggests a comparison of results obtained in the old-time schools, when the pupils devoted their entire attention to a comparatively few subjects, and the schools of today, with their greatly enriched courses of study covering twice the number of subjects—a comparison of results between the schools of a generation or more ago when, without much regard to gradation, examination, or promotion, the largest liberty was allowed to both teacher and pupil, with the carefully graded and closely supervised schools of the present time, such as we find in some of our city systems of education where a daily program is prepared for each grade teacher and the superintendent can tell from his office what recitation is in progress in each room at any hour of the day and what particular portion of any subject is under consideration.

The change in these respects has been very great, more so perhaps than we are wont to realize. I well remember the school of my boyhood days. The three R's had the most prominent place. Colburn's *Mental Arithmetic* was mastered from the first question to the last problem in the book. No time was given to language lessons or the diagramming of sentences, but we studied technical grammar and had a thorough drill in parsing words found in the most difficult parts of Milton's *Paradise Lost* and Young's *Night Thoughts*. The older pupils learned political geography without a thought that it had any connection with the earth upon which they lived, and memorized Quackenbos's *United States History* by the page, four pages at a lesson, without any reference to the relative importance or value of different portions of the subject. We never dreamed of nature-study, and we were not instructed in music or drawing, physiology, or civics.

We had a kind of manual training in full and rounded measure on the farm, mornings and evenings and on Saturdays, with frequent touches of physical culture in the schoolroom that produced a series of movements that were not of the Delsarte type.

This common-school course has been gradually extended and "enriched" until it now includes in many of our elementary schools, in addition to the fundamental branches already named, with but little elimination from any of them, four or more years of language lessons, a good deal of literature, a much more extended course in geography, physiology, civics, music, drawing, art-study, physical culture, manual training, and domestic science, and in some schools the elements of algebra and geometry and a year of Latin.

With this extension of the work, there has been in many instances a shorten-

ing of the time. The school day has been reduced from six hours to five and one-half, and in some cases to five hours, and the year shortened from forty weeks to thirty-eight. A loss of one-half hour a day means ten hours a month, or ninety-five hours for the school year. This, in connection with the two weeks, or forty-four hours, means a shortening of the year by one hundred and thirty-nine hours. Is it possible that this has something to do with the poor preparation of pupils for the high shcool and the college about which we hear so much?

Our high schools, largely to meet the demand of the colleges, have extended their curricula until now the first-grade high school includes sixteen units of high-school work, which means four branches for each of the four years of the course. A large number of the high schools in our cities are now offering to the student advantages superior to many of the colleges in the early days of the republic. In laboratory equipment and in teaching force they are superior to a good many of our colleges of a quarter of a century ago.

The colleges in recent years have added largely to their requirements for admission and have greatly modified their courses. They are giving far less prominence to Latin and Greek and more to science and modern languages.

In my college days the faculty prescribed the course to be pursued for the first three years and the student was allowed some choice only in the senior year. At the present time the work is largely elective after the first year, and in some collegiate institutions, throughout the entire course.

In order to meet the demands of individual students, the courses have been multiplied until, according to a recent number of the *Educational Review*, the number of semester courses, open to undergraduates at Cornell University, is 510; at the University of Michigan, 698, and at the University of Wisconsin, 681.

I am aware of the fact that these changes have come about largely as a result of the demands of the times. The old curricula would not answer for today. We are living in a wonderful age. New discoveries and new inventions have revolutionized the industrial and business world. The adaptation of electricity to the service and comfort of man, the telephone, the rapid extension of interurban lines and rural delivery have materially changed life-conditions in the last quarter of a century. Business is transacted very differently from what it was in former years. The business methods of our fathers would not answer at all in this day and generation. And yet, when one reads of the dishonesty that has been brought to light as the result of investigations into municipal and governmental affairs, and the lack of fidelity to the most sacred obligations on the part of officials in insurance circles and banking-institutions, one cannot help wishing that more of the old-time honesty and integrity might have been transmitted to the present generation.

It is well for the pupils in our public schools today to commit to memory and appreciate fully the meaning of those lines of Robert Burns:

Is there, for honest poverty,
  Who hangs his head, and a' that?
The coward slave, we pass him by,
  We dare be poor for a' that!
For a' that, and a' that,
  Our toils obscure, and a' that;
The rank is but the guinea's stamp,
  The man's the gowd for a' that.

What though on hamely fare we dine,
  Wear hodden gray, and a' that;
Gie fools their silks, and knaves their wine,
  A man's a man, for a' that.
For a' that, and a' that,
  Their tinsel show, and a' that;
The honest man, tho' e'er sae poor,
  Is king o' men for a' that.

It is an age of great business activity and commercial enterprise. A spirit of commercialism and money-getting seems to pervade the atmosphere. That many are willing to acquire riches without giving any sort of an equivalent is evidenced by the numerous patrons of the great number of get-rich-quick schemes that have been launched in the past few years. Secure a fortune and all the comforts and luxuries that come therewith, and get it by the shortest possible route, is a present-day maxim. The young man wants to begin in business where his father leaves off, forgetful of the fact that the father has attained his present position by years of honest industry, frugality, and persevering effort. It is an age of hurry and get-there; short-cuts are in demand; men are impatient of delay. The Pennsylvania Flyer must cover the distance between New York and Chicago in eighteen hours, no matter if a hundred lives are sacrificed every year by the fast schedule.

This spirit of haste has to a greater or less extent influenced our students and affected our educational institutions. The student is anxious to find a short route to knowledge; to enter as soon as possible upon his professional or business career. There is a willingness to sacrifice thoroughness in order to gain time. Oftentimes the student is anxious to receive assistance from any source that will help him in time of examination, and he is willing to be lifted over any obstacle that may lie in his pathway rather than take the time and put forth the individual effort necessary to remove it. In this way his intellectual vigor is impaired and his power to produce results is weakened.

While it is true that this is an age of wonderful development and the introduction of new and varied forms of machinery has wrought many changes in the industrial world, and even in farm life, there are some things that have not changed. The farmer by the aid of the mower and harvester and other farm machinery can cut and harvest the hay and the grain much more comfortably and expeditiously than he could when dependent upon the scythe, the sickle, and the cradle. But the crops themselves do not take root, grow, and mature any more rapidly today than they did half a century ago. Nature takes time

to do her work and usually nothing is gained by undertaking to hasten Nature's processes.

I remember about twenty years ago a prominent business man, and at that time the president of the original Chautauqua, gave an address before an association of teachers in which he took occasion to criticize the public schools because they had not kept pace with the progress made in other lines. While wonderful strides had been made in transportation and patent devices had shortened the time required for the completion of work in almost all lines, no teacher had succeeded in devising a plan or perfecting a process whereby the boys and girls could be thoroughly prepared for college or properly fitted for their several vocations in life in a shorter period than formerly. He regarded educational processes in the same light as industrial, and he ignored the fact that time is an important factor in education, and no one has as yet been able successfully to hasten child development or shorten the period required for reaching maturity. If you wish to build a patent fence around a ten-acre field, you can do the work much more quickly today than it could have been done thirty years ago; but if you wish to surround the same field with a natural hedge it will take just as long now for it to grow and reach maturity as it did then.

I believe it is time to call a halt on the shortening of the school day and the school year. While the brighter pupils may finish their preparation for college or complete the high-school course in the twelve years usually allowed, it is better for the average pupil to take nine years for the elementary work and four years for the high school, and the student who is graduated from college at twenty-three will derive far more benefit from the studies of the junior and senior years than the one who completes his course at an earlier age.

With the multiplicity of branches in the course and the same, or shorter, period of time, we should naturally expect more of superficiality and less of thoroughness. As the work is made more extensive it will become less intensive. Elementary pupils will be apt to go to the high school with a limited and uncertain knowledge of many subjects and lacking in a thorough mastery of the fundamental branches. They know something about many things; they are better informed than pupils of former times, but they have not as much power to grapple with the problems that confront them in the high-school course. This seems to be a somewhat general criticism that is passed upon our present courses of study.

Graduates from the high school who enter our colleges are better prepared in many ways, especially in English, than the students of twenty-five years ago, but they are said to be deficient in the power to think for themselves and the ability to do things, a power that comes from the habit of quiet, uninterrupted study of one subject for a longer period than twenty or thirty minutes at a time, and the custom of solving problems by individual effort without outside assistance.

It occurred to me that our college presidents are in a good position to judge

of the results of our present-day work as compared with that of former years, so I submitted this question to quite a number and received from them very prompt replies.

Allow me to quote a few extracts from their letters. One says:

Speaking generally, and with no pretense at precision, I should say the multiplication of subjects of study and the refinement of methods have had a harmful influence on preparation for college.

A college needs as preparation not general information but thorough and systematic instruction in English, foreign language, mathematics, and a few subordinate subjects. To my mind, the tendency of modern methods is to give the pupil a little knowledge of a good many subjects, without a thorough or workable knowledge of any. As compared with the entering classes fifteen years ago, the average student is better informed but less well prepared.

There is danger, too, that the extreme refinement of method may lesson the disciplinary training of preparatory work. The subjects are all made too easy and attractive. The student's power of sustained concentration becomes weakened and his will enervated. I think the college freshman of today is less thoroughly trained and disciplined than were the men of a generation ago. He is more afraid of a hard task and shows less energy and persistency in grappling with it.

Another says:

It is very difficult to define causes and effects, and especially in education. It is, however, my impression that boys now come to college with a wider knowledge than in former times. I should hesitate to confirm what is sometimes said, that boys come to college less willing to tackle hard tasks. The community always has those who yield to slight temptations. If there is an increase in the proportion of these, this is due to an increase in wealth, rather than to any change in educational methods.

A third writes:

The great difficulty we find with students when they come to us is that they do not think for themselves, and I believe it to be due to the fact that teachers now do a great deal for their pupils which formerly the pupils were obliged to do for themselves. Whether the multiplicity of studies has been the cause of this on account of the wider range of work which the teacher must cover and consequently less time which can be devoted to each subject, I do not know, but I strongly suspect this to be true. My personal opinion is that we need now in our schools thorough instruction in mental arithmetic, to be followed by mathematical subjects, science, modern languages, English, history, civics. These are the important things to which time should be given.

From a fourth I quote as follows:

Pupils from the high school are coming to college now better prepared than ever before. I do not believe that method can be made a substitute for matter. I do believe, though, that the matter can be improved by the method.

From another letter I make the following selection:

My opinion is that we are attempting too much in every field of educational effort. The child in the elementary school is not overtaught but is overburdened with subjects of study—some of questionable utility. The high-school pupil must round out a course of study—in name—and the result is mental shallowness with its attendant insufferable conceit. Even in college halls some students are attempting much and doing little. The *thinker* is becoming an almost unknown factor in the educational life of our pupils and

students. I doubt the power of the college student of today to think more vigorously and rightly than his brother of forty years ago. Let some of our extensive work give way for a little more intensive work. Let us in school life wisely recognize our limitations. We cannot do everything the crochety brains of some would-be reformer of school work may invent and we ought not so to attempt; but we can use better judgment in modifying our courses of study. We can recognize that to do a few things well and with power is better than to do many things with enervating result, and we can give greater force than we do to a just demand for more sympathetic and better trained teachers for our youth.

Still another writes:

There has been such an improvement in the general work of the lower schools that it is difficult for a college president to answer your question categorically. The maladjustment of the curriculum to the child has been such that he has not gotten the full benefit of it in many cases. Method is useful simply in applying the curriculum to the child. Possibly we have had too much method in proportion to the curriculum. I think it is a fact that the boys and girls coming to college today are better developed all around than they were when I went to college.

From these extracts it will be seen that there is a difference of opinion in reference to this question even among those in high places, men who have perhaps the best opportunity to pass correct judgment upon the results obtained from our present system of training as compared with that of former years.

Probably no one of us would advise that we go back to the old course of study of thirty years ago. The course should contain something besides the three R's. There was need of elimination and enrichment. Elimination of some features of arithmetic, geography, and grammar that could well be spared, and the addition of other subjects that would be helpful in the training for good citizenship. The difficulty has been in many cases that there has been no elimination. The enrichment has come as an absolute addition to all that was included in the course before. This has resulted in an overcrowded course and pupils have been overburdened. They have acquired a smattering of many things and a thorough knowledge of no one subject. Worse than this, they have had no chance to form a habit of concentration or acquire the mental power that would enable them to take up the work of the higher departments in a satisfactory manner or grapple with the problems of life successfully. No course of study should contain so many branches that it will not permit of a program that allows a half-hour or more of quiet individual study for each pupil in the elementary grades and a longer period in the secondary school. But a small per cent. of our pupils enter upon a college course; less than half take up high-school work. Those who receive all their training in the elementary schools have a right to something besides the formal studies. They may be brought into touch with literature and become interested in a line of reading that will be of great value to them in the future. Through stories of our history told by the teacher or read in the grades they may be made better citizens and leave the school with a desire to know more of that history. They should have their eyes opened to some of the beauties of nature in this world that has been fitted up with such wisdom and beauty

for the home of man—especially the trees, plants, flowers, and birds to be found in their own neighborhood. All these things can be correlated with reading, geography, and language lessons.

What is needed is the right kind of teaching, as a friend said in a recent letter:

> Every day's experience adds to the strength of my conviction that the crying need in our schoolrooms is better-trained teachers—those possessed of better scholarship, having a better understanding of child nature and able to devise and use sensible methods of teaching. An unwise teacher can plunge a child's mind into confusion and wreck, under any course of study, old or new. A child may be forced into the ranks of the mental incapables as well by the manner in which he is taught the "Three R's" as by making him "a Jack-of-all-trades-and-master-of-none," in an attempt to get through a course of study that a sensible adult would draw back from with alarm.

In one of the quotations which I read a few moments ago the writer makes this statement: "The great difficulty we find with the students when they come to us is that they do not think for themselves," and he further says he believes it to be due to the fact that teachers now do a great deal for their pupils which formerly the pupils were obliged to do for themselves.

The same complaint comes from other sources. Dr. Greenwood, in the last number of the *Southern Educational Review*, writes:

> I believe one of the most serious defects in our entire educational system from the nursery through the post-graduate work in our best universities is that the teachers and professors carry too much of the loads for the learners, that they explain and direct and lift the learners over too many hard places. The pupils are slided over the hard places so easily that they really do not get hold of anything thoroughly enough to understand it.

Says the same writer: "The American teachers do not only the thinking, but very nearly all the work for the pupils, as compared with the European teachers."

To what extent this may be due to the multiplicity of branches and refinement of methods it is difficult to determine. It may be that, having a large amount of work to cover, and being anxious to advance as many of the pupils as possible, the teacher finds it easier and quicker to lift them over the hard places than to allow them the time necessary to dig out the problems and do the work for themselves. No greater mistake could be made. Unfortunately, many students seem willing to be carried, and it is greatly to be deplored that so many helps are available.

Some of you may have noticed a catalog of a publishing firm that has been distributed broadcast throughout the country, with a view of reaching as many students in secondary schools and colleges as possible, advertising handy, literal translations and interlinear translations of all the classics used in high school and college, with the statement that a literal translation is a convenient and legitimate help. Students who rely upon these helps make a most grievous mistake. No student ever learns the Greek or Latin language from an interlinear translation.

Dr. Greenwood well says on this point: "The 'pony' is the worst possible mount for the youthful traveler toward the mountain-tops of knowledge."

The same catalog calls attention to commencement parts and efforts for all conceivable occasions, ready-made for the student's use. Under such conditions, the teacher has a hard task to secure original work.

Let me say in conclusion, the study-hour is as important as the recitation period. Any course of study that does not allow a sufficient amount of time for both study and recitation is overcrowded and has been too much enriched. The teacher should make every effort so to arrange the program that the pupils will have a fair opportunity for individual study, and they should be advised, encouraged, and obliged, if need be, to do their own work. One of the most valuable results that can come to our boys and girls from their training in the elementary and secondary schools and colleges is the ability to focus the attention upon one subject for a considerable period of time and the power of clear and rational thinking.

One of our poets has well said:

I love vast libraries; yet there is a doubt
If one be better with them or without,—
Unless he use them wisely, and, indeed,
Knows the high art of what and how to read;
At learning's fountain it is sweet to drink,
But 'tis a nobler privilege to think;
And oft, from books apart, the thirsting mind
May make the nectar which it cannot find.
'Tis well to borrow from the good and great;
'Tis wise to learn; 'tis god-like to create!

ORDER OF DEVELOPMENT AND STUDIES SUITED TO EACH STAGE

WILLIAM E. CHANCELLOR, SUPERINTENDENT OF SCHOOLS, DISTRICT OF COLUMBIA

If everything in the world is well enough, why not build a lodge in the wilderness, and be happy? But if all is not well, why not take a little innocent recreation in the way of reform, beginning with that profitable surgical carpentry of plucking the beam out of one's own eye?

For several years past, in the occasional quarter-hours that I have been able to devote to thought and work in education as such, I have been trying to resolve certain difficulties in the relations of the educational world to the society that environs and supports it. I have been asked and am asked these questions:

1. Why does not formal education always educate?

2. Why do children leave school, or why are they taken from school, before they are educated?

3. Why do so many men and women criticize, distrust, censure, or reject education as it is for not being genuinely what it purports to be?

4. Why are educators given so much responsibility and so little authority?

5. Why is it so difficult, why is it impossible, to get sufficient money for formal education?

We are upon the horns of a dilemma; either American democracy must look elsewhere than to education for relief from the ills that afflict us as a society and as individuals, which apparently amounts to abandoning education, or else educators must provide a new kind of education.

In what respects can education be changed sufficiently for the better so that it may meet fairly well the needs of the age? In various quarters, various remedies are proposed: among these remedies are more men as teachers, more evening and summer schools, a longer period of compulsory attendance—all requiring more money—which is the very thing denied by a skeptical public. The case seems to require not so much exhortation as introspection. Of course, in certain regions of the nation, where they are still voting, county by county, whether or not to have public schools, exhortation is in order; but in most regions the communities have tested private, endowed, and public education, and are paying now substantially all that they think it is worth.

Education takes the average boy for about one hundred and fifty days in the year for about five hours in the day. Education and society both know that the graduate is not really educated: but society says in its practice, "I have examined your boy who stays about ten years in education, and I really don't care in most cases to pay the price for the difference in quality." Wherefore education, shut in to itself, begins to inquire how it can change its own character. Obviously, it can effect changes either in its mechanism or in its spirit; and, obviously, it prefers the mechanical changes. But when these mechanical changes are tried here and there, the results are disappointing.

A logic that appears to surround us without loophole of escape appears to compel us to examine the thing itself that we profess, which is education. At once, we discover that education is essentially a matter of the exercises to which soul and body are subjected.

A few years ago, there was a theory that attracted much attention and secured some consideration in our courses of study, as pursued in different communities, to the effect that each individual repeats in his own life-history the life-history of the race. It is entirely unnecessary for me to review in this presence the arguments, the experiments, the criticisms, the books, the essays, the methods and devices involved in this famous recapitulation theory. You all know what it is and that it has failed as yet to convince either the American public or this profession. The trouble with this theory is rather its insufficiency than any erroneousness. It is insufficient in that hitherto all nations have suffered and failed because of arrest of development. We are not content that our youth shall repeat in this respect the racial history; we desire them to repeat the history of the greatest of the earth, of those who have ascended far above, who have developed far beyond, their ancestral nations. This theory leaves education a truncated pyramid; we need an apex. But

the theory, though mainly, is not wholly, true. As a matter of fact, we individuals tend to repeat the life-history of our own particular ancestors, not up to the times of their demises, but up to that partial maturity when they became our parents. In other words, we tend to repeat the life-history of the youth of our ancestors. In the word "tend" I have tried to suggest a second error in this recapitulation theory: We do not actually repeat every phase of the histories of the bodies and souls of our youthful ancestors because we short-step and even skip most of them, for the adequate reason that these histories are distinctly contradictory in their details. Clearly, this theory looks backward; it has no light to shed upon the problem how to produce leaders; and is valuable rather for correction than for direction, to limit and to prevent excesses rather than to inspire and to guide education.

A second theory has a certain relation to the first, supplements it, to an extent enlarges, and to a degree improves it. By this theory, the individual is to be prepared for human society as it now is; and education is defined as deliberate preparation for life by intelligent participation in such modes of life as are comprehensible by the individual learner. By carefully determined studies and exercises, the youth is to be converted into a useful member of society; and this fact that he can be used by society to effect its ends is considered satisfactory evidence that he is educated. This sociological philosophy has not yet achieved the vogue of the historical philosophy; but it has been urged and it is being urged by forces of the greatest significance in American life. It has university standing, not less than that of the historical philosophy; and it has business backing which the historical philosophy could never secure. It appeals to common-sense, for it is subtly utilitarian, if not essentially materialistic. When modified by the provision that the school must never attempt to educate contrary to the nature of the individual, must not try to make a merchant out of a poet, or a politician out of a scientist, or an engineer out of a philosopher, or a farmer out of a lover of the crowded city, then this sociological theory commands considerable attention; that is, attention until one sees that the two provisos destroy the theory root and branch, for the first proviso asserts that the individual, not society, is the determining factor, and the second admits that the boy cannot be made really to understand adult life and its institutions. All the effect of the theory is, therefore, to bring upon the horizon the fact that the truly educated man serves humanity. This by no means forces us to the extreme view, that the end of education is solely to produce heroes and leaders and sages; that is, great men. But it does compel us to see that the sociological theory in its purity is but a generalized philosophical affirmation of the commonly condemned attitude of the father who proposes to fit his son for business or of the mother who prays that he may become a minister. There is, moreover, another fatal error in the sociological theory; an error familiar enough to all psychologists. Fit a boy for the dramatic profession in his youth, satiate him with opportunities of expression; and often he will never enter a theater, for he has exhausted his interest

in the dramatic. Facts function to inhibit as well as to generate interests. Human nature craves the rounded, complete life as well as inclines to follow the familiar lines of least resistance—in this contradiction life consists.

The schools of America in their average actual practice incorporate an interesting philosophy. Our courses of study are the product of a kind of natural evolution, not quite so natural as it seems, but of that accidental, haphazard character typical of unconscious evolution. This philosophy is opportunism. In accordance with it, boards of education and superintendents of schools take what courses of study they find and add to them, tinker them. Where the boards are in control, these additions and tinkerings result in courses thoroly worthy the study of educators. Whether they deserve study by the pupils is a different question. They achieve two results: they recapitulate the educational courses of the parents of the pupils, and they try to prepare for real life. Occasionally, where in certain communities there has been for two or three decades a competent superintendent or a series of competent superintendents, with boards indifferent to educational matters or shut out from them by law or regulation, these opportunist courses of study show no little unity of purpose. When these actual courses are placed side by side, and when they are examined in actual operation and compared, we discover two facts; one, that opportunism is mere natural evolution, altogether out of harmony with that purposive conscious evolution expressed, e. g., in the constitutions of nation and states and in all the higher phases of American culture. Educational opportunism does not seem to comport with the dignity of a profession in such a civilization as ours. A second fact is that it results in unwarranted differences in practice. If opportunism expresses a genuine philosophy, a body of general truths, then in like communities it would be incorporated in like courses of study. To this it may be objected that from one end of the country to the other we have history, geography, spelling, biology, Latin, in practically the same schools and grades uniformly and universally. This is true, tho only in appearance, for history by one method is a different thing from history by another method; but my point is that the additions and the tinkerings are surprisingly unlike in like communities—that tradition is the keynote of opportunism, and that the variations are due to individual caprices, usually of laymen, are the two facts that I desire to emphasize.

Psychologists will perceive that these three theories, the historical, the sociological, and the opportunist or natural evolutionist theories, are all primarily, if not wholly, objective—they depend for their proof upon external facts. And psychologists, who are now inquiring why the mind has a body, logically inquire also why education does not go to psychology for a philosophy of a course of study.

This is the duty of educators: to challenge psychology and psychologists to perform this public duty, to show educators how the mind grows and what it needs to grow, when its changes take place, and what an educated soul is. It

is possible that psychology now has rather more to offer in the way of truths applicable to education than psychologists themselves care to assert. Pure science seldom cares to play any part as an applied science; it is a kind of filial ingratitude to a parent.

It seems to be pretty well agreed by genetic psychologists that the child of five is all curiosity. His motive is to see things. By fits and starts, he tries to do things. His intelligence is far beyond the power of the adult mind to recall or to imagine. He lives thru more experiences each day than I do in a month. They are, of necessity, therefore, superficial experiences, sense impressions, quick and light reactions. Of morals, he understands nothing; he has no need of social consciousness and of personal consciousness. Any drill is an offense. Any stimulus is an offense. Any demand upon his attention, any command relating to his conduct, beyond the requirements of sheer necessity, is an offense. All that he requires is opportunity to see things, to play, to talk, and to do things that seem to him worth while. He requires care, not setting in order. When the teacher of the seven-year-old child understands that morals do not concern him, save the merely prescriptive morality of obedience to parents and to teachers, and that efficiency is but a star upon the horizon, but that the business of the day is to cultivate and to gratify the searching activity of the soul of the little one—that intelligence is the ideal—how many economies can be effected! And how clear is the day's duty! Nature story-telling, learning to read, individual play, singing, happiness, putting-forth of the mind, finding how to do things and dropping the task upon the first weariness; these fill the mind of the teacher as well as of the children.

At nine years of age the child is merely all industry. There has been a marked subsidence of curiosity with its dissipation of attention. Moral ideas have begun to glimmer in him. He desires knowledge that he may use it. He is not so much self-conscious as self-centered. He is willing to drill himself in games with others; but he has not yet the true or the whole social spirit. His motive in life seems to be to get things for himself, especially to get things done by himself for himself. In this selfishness there is no malice: he is simply unmoral. Drill so far from being an offense has become a need and a pleasure. But no mode of stimulation from outside can be endured. Nor should any demands or commands be directed toward him beyond those of sheer necessity. All that he requires is opportunity to do things and proper direction in doing them. He must play, but his play now needs to be checked, as does his reading, lest he exhaust himself with over-fatigue.

When the teacher of the eleven-year-old child understands that morality is still far off and that knowldege of itself counts for nothing, but that efficiency is attainable now or never, and that the best days for the development of quickness and retentiveness of observation have already gone by, how clear becomes the day's duty! To put thru one's undertakings, to play games skilfully, to know what one knows certainly, to write, and to draw, and to sing, and to use tools accurately, to do whatever one does well, to persevere,

to remember perfectly, to read exactly what was written and to express the thought and feeling in what was written; for the sake of the boy, these fill the mind of the teacher—not so many pages of the readers or so many paragraphs of the geographies.

At thirteen years of age, there is considerable idealism, derived, of course, from the fruits of the curiosity and industry of the earlier years. The self-centering has become self-consciousness; in the conscience of this boy, there is a deal of genuine morality. Honor, truth-telling, loyalty, diligence, decency, are fairly well grown; but sympathy, self-denial, and graciousness are only in the bud. Drill is not yet resented; but the period for it has passed the climax. The boy has made no little progress in his games toward action in association with others.

More vital still will be the change in the attitude of the first-year high-school teacher, and more complete still will be the change in the atmosphere of his room, when he comprehends that the fifteen-year-old boy does not come to school to learn Latin or algebra or physical geography or mechanical drawing. God did not create the boy from the foundation of the world in order that this knowledge might find preservation in him as a repository. Not at all. The boy lives that he may grow and manifest in the universe certain powers and qualities; at fifteen years of age, he is facing human society, to absorb this into his soul, to learn how to pursue his own course in the flood of life. The studies will pass; so will the boy; so will the race. They are to learn what courage and fortitude and honor and truthfulness and self-sacrifice are. I judge this because I see these qualities rising in the noblest humanity in all lands and ages and here and now in the season of adolescence.

At seventeen years of age, idealism is almost at its climax. The youth has begun to have a sense of values or principles; this sense is still obscure, indefinite, and unreliable, therefore, in its findings; but intellection or reason has reached the point of activity. Habits are fairly well fixed, and the day of drill is past. Morality is not established in respect to details; but the spirit of morality, which is wisdom, is alive and strong. Efficiency toward intended ends is at its heights as a power but, of course, not yet in respect to the results. To both demands and commands, the youth is keenly sensitive and fairly responsive. I speak of the normal boy, normally educated, and not of the boy who is going to wreck in sin or in crime.

Man is dual, as everyone knows; a creature of body and soul. For the body, he has but one authoritative ideal—health; for the soul, he has three ideals. It would be easy to show the source of man's conception of his psychical nature as triune. Without volition, affection, and intellection, all three, there would be no freedom for the soul, for freedom springs from oppositions and reconciliations. Were the soul to function in but one mode, there would be absolute tyranny like the cohesion of a solid; were it to function in but two modes, there would be ceaseless warfare like the conflict within gas; but the soul has the ordered liberty of the fluid. These three modes in which

the soul functions suggest three ideals: intelligence, efficiency, and morality. These three terms, however, are not of the same powers, but form a scale. Intelligence may be characterized as the activity of the soul—its curiosity, stimulated or excited by motives set in action by facts pressing upon it from the world without. Here body unites or correlates with soul, for without health, motives cannot well up in the soul. Life is primarily a process of originating motive force; it is, of course, primarily physical, and becomes psychical only when motives stir. Motives are always unconscious: they ally themselves with interests, which are the simplest effects of the functioning of facts. Motives are primitive willings capable of development into conscious purposes, but dying themselves in the process, as the seeds die. What we mean by intelligence in this phase is the soul quickened by motives to inquire what the world is. Efficiency may be characterized as intelligence obedient to ideals. It is the resultant of motives resolutely at work finding facts of life and exciting the soul to interpret them. Efficiency is the result of purposes that have reduced body and soul, both, to their own ends. There can be no efficiency until there is much critical intelligence. Morality may be characterized as efficiency that works in harmony with values or principles as established in the fully conscious soul. Such a soul knows both itself and the environing world, not completely, but certainly. Life proposes these three aims: to originate motives, to acquire ideals, and to enforce values or—to use other words—to apply principles. When an individual has attained these ends, he is intelligent, efficient, and moral. It is possible to attain these ends in middle adolescence, but not before. Then, and not before, it is reasonably safe to allow the educated boy or girl to encounter the realities of the world.

The trouble with the man who is overloaded with bank accounts and the merchandise of the world is the same, it appears to me, as the trouble with the man who is overloaded with book knowledge and the gear of the intellectual life.

The motive of the man with the uneasy roll of banknotes is, in his own brilliant slang, "to get action," to be a big part of human life. He is surcharged with force; he has found freedom. In short, he is motor in type, and generates his own power. Similarly, the motive of the man whose knowledge is not yet in repose is to convey it to others promptly. His energy overcomes his judgment. The ideals of a man depend, of course, wholly upon what he has known before. All imagination is in the functioning of facts: visions spring from sights. What the man hitherto hoped to be, he now undertakes to be. His money or his knowledge has not changed him. It has simply brought his ideal to reality.

For the man of motives and of ideals, there is always hope: his soul has vitality and elevation. But the mind of man has other business than aspiring and desiring. It has the final business of measuring, of evaluating, of appreciating. Strong motives and rich affections are essential; but they are not enough. There must also be fine and sane values. The place of intellec-

tion is indeed last and least; but it is undeniable, and absolutely necessary to common-sense. On this battlefield of values, the *nouveau riche* perishes, for it is a field of pitfalls, sunken roads, false messages, artillery fire, and cavalry charges, of laziness, treachery, and reckless daring. Some Marengo tells the motive, some Austerlitz the ideal, some Waterloo the sense of values in each new Napoleon.

And yet this is the order of development, it seems to me, of every human soul. And it seems to me that we shall never know what studies and exercises to put in or to keep out, to put out or to keep out on the educational curriculum until we are willing to ask of each study and exercise these three questions—

1. What motive in the soul does this arouse?
2. What ideal does this furnish?
3. What value does this establish?

But these three questions do not apply equally at each stage in the development of the boy and man: and for two reasons, one philosophical and the other scientific.

To expect or to desire a full and proper appreciation of the things, conditions, and relations of life before one is really alive and at work for ends, is as dangerous to the welfare of the individual and of society as it is false to the known facts. The criminal is simply the man who is intelligent and efficient without being wholly moral. The more his education in intelligence and in efficiency is disproportioned to his education in morality, the worse for himself and for the world. Fully to accept this proposition, it is, of course, requisite to define intelligence as the mere activity or curiosity or motivation of the soul concerning the outer world—to define efficiency as successfully worked out motivation, and morality as motivation successful in relation to social values. The expert criminal fails to become a whole man because he works in affairs that are not worth while to himself and also offend the conscience of his fellows. In other words, he misjudges, fails to appreciate wisely, is deficient in the higher modes of intellection. The philosophical reason, then, why we do not ask with equal emphasis all three questions at each stage in conscious evolution is that efficiency succeeds, follows, and flows from soul-activity, primitive intelligence, motivation; and that morality succeeds, follows, and flows from efficiency. As values and principles are higher and more difficult than ideals, and as ideals are higher and more difficult than motives, so, in consequence of mere unfolding of these terms, morality, or social wisdom, is higher than efficiency, and efficiency than intelligence.

To put the matter in negative propositions, no man can be moral who is not already efficient; and no man can be efficient who is not already of actively moving intelligence. We proceed from being observant to becoming efficient, and finally attain morality.

Now this is exactly what we find in the facts of human development as displayed in genetic psychology and discovered by common-sense. I am not

here to discuss how interests grow from the activity of the intelligence trying to dig facts out of the world quarry; how motives grow from interests by digging more facts; how ideals grow from motives by yet more digging; how values grow from ideals; how, after adolescence, we begin the whole process over again, and go from science to art and from art to philosophy. I am here to suggest some of these elementary principles of psychology apparently applicable to the present general inquiry, how to make a reasonably educative course of study. Intervals of reflection have led me to the opinion that educators who desire to avoid scholastic errors corresponding to the excesses of spendthrifts must investigate the motives, the ideals, and the values befitting the human soul in each of its stages and derivable from such studies and exercises as may be admitted into educational courses. And I venture the prediction that, in order to reduce the now excessive number of topics in these courses, to set our topsy-turveydom in order with the true upside up and the true outside out—really to educate our youth, and to persuade the common conscience of American humanity into giving us adequate material support in this work of education—we shall yet have to devise a psychological curriculum. I have not the slightest doubt that we shall do this very thing, and that the outcome will be simple enough to surprise ourselves and to gratify the general public.

Obviously, this proposition amounts to throwing a gossamer bridge of dreams across the gulf fixed between the amazing material prosperity of the American world and the consequently mortifying poverty of the persons who as teachers are absolutely essential to the maintenance of that prosperity against the dearly beloved, but nevertheless certainly barbarian, children constantly welling up out of our homes. But it seems to me that the eagerness of teachers to seize upon every new fact of Nature, every new poem, every new exercise, indeed everything new, as a possible addition to the school course, proceeds from the intellectual activity discontented with the void of philosophical and psychological wisdom.

The process indicated is synchronous with the physical growth and cannot anticipate that growth. The highest ideal that the primary school has any psychological right to set before itself for attainment is intelligence, soul-activity, motivation toward the external world. To expect efficiency of the boy of ten years is cruel, to expect morality of him is proof of total incompetence. The highest ideal that the elementary school has the right to seek for the boy of fourteen or fifteen is efficiency. The proper ideal of secondary education, with its climatic years eighteen or twenty, is morality, the power to affirm and to deny, to do and to withstand. Unless the boy shows mental activity by the age of ten; and resoluteness toward ends by the age of fifteen; and honor, honesty, courage, fortitude, decency, truthfulness, purity, loyalty, self-denial and self-reliance by the age of twenty, there is little hope for him.

But these things are very different matters from the subjects everywhere set forth in courses of study. No doubt, for the courses are mainly objective. They are named to please public opinion, which desires visible metes and

bounds. They can be measured and debated. They can be learned without any resultant education. But where the teacher sets before himself the appropriate ideal, when the words of the lesson ring in the ears, but the purpose of education beats in the heart, then these objective partitionings of so-called subject-matter lose their solidity and opacity, and the teacher beholds the soul of the learner.

In this summary I have tried to avoid details but to say enough to fix the answers to the three questions:

1. What motive in the soul does this arouse? is the question of transcendent importance in dealing with small children.

2. What ideal does this furnish? is the transcendent question for the boy or girl of twelve to fifteen.

3. What value or principle does this establish? is the transcendent question in the last years of secondary education.

I apprehend that in the next period of formal education there will be such internal changes in our courses of study as to make their ancestry almost unrecognizable. I anticipate this both because of past history and because of the as yet unspent force of psychology and of sociology. It does not seem to me that fifty years hence we shall have (for example) for twelve-year-old boys and girls a daily program at school with such notations as: U. S. history; spelling; writing; music; languages; manual training; drawing; geography; physical culture; arithmetic.

It is, of course, certain that there will be new axes of thought with resultant new spheres of knowledge and of art. Also it is certain that annual or semi-annual or quarterly cutting-up of ten (more or less) studies and exercises will disappear. What I am trying to show is that all objective divisions and assignments are false to educational science and therefore incompatible with its art. I hazard the opinion that subjective considerations will determine the progress of the schools.

What I am trying to say is that we shall not aim to plant a certain knowledge of Asia or of colonial history or of percentage or of carpentry in a boy, say thirteen years of age, but to evolve out of his growing soul certain powers, dispositions, and purposes.

We must thrust the course of study into its place as solely a means to an end. We must reject in the courses everything that is false to the period of life represented by the children of the various grades. We must repel knowledge for its own sake; there is no such thing properly known in the world of education. And in the process we shall find ourselves simplifying our problem wonderfully.

In the remaking of our courses of study, we shall reform them not merely by years, but by days and minutes. We are doing this very thing, for educational psychology is actually getting into our schools. To accomplish this reform, we must turn the schools inside out, driving tradition, as such, away and calling in the spirit of truth, which is reason.

Certain specific conclusions appear inevitable.

The school day of uniform length for all pupils four to twenty-four years of age is a mechanism to be discarded as soon as possible by the human spirit.

Utilitarianism that is mere materialism must not dictate writing drills to six-year-old children, or spelling drills to sixteen-year-old youths; making school harmful in the one case and hateful in the other.

We must locate the topics of arithmetic where they belong according to the science of genetic psychology.

Since all history is essentially a story of morals, we shall leave formal history to the years of well-advanced adolescence.

Literature, music, drawing, and play will constitute the day's program for small children.

For the nine-year-olds, school will be a rather formal affair, mainly of drills in language, drawing, music, number operations, carpentering, or sewing, with reading and writing and games.

For the thirteen-year-olds, there will be the foregoing with compositions and information lessons added: there will be also a foreign language and something of what we now include in arithmetic, geometry, and algebra.

The present scheme of one teacher for forty or fifty children for five hours a day, for five days in the week, and for forty weeks in the year, with incidental home-lessons to be taught by the parents, will go by the board. Night work for pupils should be unknown. Individuals may benefit for a time by night-study; but the race never, the community never, the next generation never.

I have not tried to answer the question, What are the essential studies? but the underlying questions whose answers must determine the more familiar questions. The purpose of the curriculum should be to develop intelligence in beginners, efficiency in ten-year-old pupils, and morality in the adolescents. Every study and every exercise should pass the criticism of these tests. Each topic must stand, not on its own merits as viewed by the world of active life, but on its merits as viewed by the world of education. There will be no more artificial sequences to last a year or ten years, styled grammar, arithmetic, etc. The early secondary education will be essentially informational and moral, to lay foundations for science, art, and philosophy.

Not to be at least healthy is to be an invalid; to be healthy only and not intelligent is to be an idiot; to be only healthy and intelligent is to be a parasite; to be only healthy and intelligent and efficient is to be a criminal, or at least a sinner, and dangerous to our fellows, and there are of these not a few, in prison and out; but to be all these things and of sound morality also is to be the educated man whom alone the school should graduate not before the fulness of time.

In the light of ideals, shining in their proper places in the pathway of education, let youth ascend.

These moral, efficient, intelligent, healthy youth are safe in the world, and it is safe for the world to receive them.

In this presentation, I have absolutely rejected two familiar theories; that the child must pass through the history of the race, and that he must be prepared directly for participation in the affairs of the modern world. I do not

believe that either the historical theory or the sociological theory solves this problem of the curriculum. I have rejected the traditional theory that we must accept as very good most of what is, and add the new as public opinion may dictate. And I have said in terms as unequivocal as they are brief that to my thinking, as I view the external world of reality and the real world of the soul, we shall find our solution in a genetic psychology that reveals the processes and stages, the functions and the interests, the motives, the ideals, and the principles of the soul as it journeys and sojourns from birth to death.

SHOULD THE SCHOOL FURNISH BETTER TRAINING FOR THE NON-AVERAGE CHILD?

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Training is a term badly overworked. It is unwisely and needlessly made to stand for instruction, for education, and for the discipline which results from regulated effort. It savors too much of formal repetition, studied imitation, and unprofitable routine. It puts drilling in the forefront. It puts personal initiative and thinking in the background. The dog and pony show illustrates what can be done by training.

All children doubtless need much training, but most of them need instruction and guidance and practice in constructive thinking more than they need training. They need to be led or directed in the application and test of their knowledge. They need to be encouraged in both concrete and general expressions of their personal conceptions of things. They need exercise and direction in the use of their creative ingenuity. They need opportunity for personal effort. They need to be given the benefit of recognizing their own mistakes. The most perfect training sometimes degenerates into semi-conscious and irresponsible repetition, such as we see when children solve arithmetic problems by models set for them by teachers or textbooks. Training in the form of numerous repetitions produces habits and automatic actions but not necessarily a fair and friendly and inquisitive attitude toward the truth. Training as such permits but little opportunity for mistakes that are worth noticing. It deprives the student of the opportunity to reflect or cogitate upon his own blunders. It tends to destroy rational initiative. Even manual training deserves to have its name changed; for if it isn't brain training and also heart and mind culture it falls short of its opportunity.

Perhaps we all agree that the non-average child should have better training and better instruction, though we see slight probability of securing such training and instruction. The term "non-average" is conceded to be inexact and somewhat unscientific. We all doubtless agree with the psychologists that there is no such thing as an average child or an average man; but we use the term for the sake of discussing a condition which needs effective treatment.

In the case of forty children in an elementary school or high-school class,

or forty men in a college class, we may for convenience classify them in three groups: Group *A* comprises a half-dozen or more who are at a given time evidently superior in intellect to the remainder of the class. They learn and comprehend nearly all subjects with quickness and ease. They are non-average individuals of the higher type. Group *B* comprises some twenty or more who learn with reasonable facility a majority of the essential subjects. A few may not be very good in music or drawing or in the co-ordination of mind and body, one a little weak in mathematics and another in language, but the members of this group may for practical purposes be called average individuals. Group *C* comprises from five to ten persons who are mentally weaker and slower than those of Group *B;* they have less power of concentration, less of self-control. Some of them learn one or two subjects fairly well and completely fail in several other subjects. Some get obscure conceptions of all subjects which they attempt to study.

So we may say for the sake of comparison that in any class of forty persons about twenty may be called average individuals. From six to ten are non-average, because they are noticeably more intelligent and more ready to acquire, assimilate, and use knowledge than the average; while from five to ten are non-average because they cannot learn so well or think so well as the large middle group. If one from Group *A* be compared with one from Group *C* in quickness of comprehension and in readiness of expression, we may say roughly that the one from Group *A* will do at least ten times as well as one from Group *C*. If comparison be made in the ability to comprehend and manipulate numbers, one from Group *A* will solve many problems while one from Group *C* solves one problem; and sometimes it will happen that the one from Group *A* will have incomparably better comprehension of each problem than the one from Group *C* has. Comparisons may be made indefinitely with all sorts of subjects and the same remarkable differences will be discovered between the brightest and strongest members of a class on the one hand and the slowest and dullest ones on the other.

Grading and classifying pupils is usually a crude and unscientific process, a mere approximation of values. A majority of pupils are undoubtedly graded or ranked as average or non-average, regardless of the relation of their mental types to the mental type of their teachers; but the fact of being average or non-average in a class depends in large part upon the type of mind of the teacher as compared with the types of mind in those who are taught. A change of teachers may in a short period of time produce a change in a given pupil from average to non-average or the converse. Suppose, for example, a teacher to be of the highly intellectual type, fond of logical reasoning regardless of thought content, and with little or no taste for concrete illustrations. (And there are many such teachers, the product of our best school and college life.) Under such a teacher suppose there is a pupil of the type of the concrete thinker, i. e., one who sees and thinks in the forms and the actualities of wood and stone and earth and sky. Then let the teacher of the intellectual type be

exchanged for another teacher, say, of the concrete thinking type, i. e., of the same type of mind as the pupil. Is it not evident that the rank of the pupil as compared with classmates will in the course of time be changed? I believe there are no careful observers who have not seen in school and college life the utter inability of the teacher or professor to grade or rank a given pupil or student justly, because of marked differences between the type of mind and habit of thinking of the teacher on the one hand and of the person to be taught on the other.

Again, suppose the children in a class or the men in a college to have teachers of a uniform mental type for a series of years. Is it not evident that children and students of one type of mind will be at an advantage while others will be at a permanent disadvantage, and therefore that the differences in rank as to average and non-average will be appreciably due to the conditions of instruction rather than the relative abilities of those taught?

Here a question arises: For what group of children or students is the curriculum of studies prepared and to whom is it adapted?

We probably agree at once that both the course of study and the daily lessons usually are and always ought to be prepared for and adapted to the middle group or the so-called average persons. This seems to be true in schools, colleges, and institutions of all grades and ranks; but occasionally a high-class professor, absorbed in the investigation of subject-matter, will in his lectures address instruction to the precious few highest and best intellects in his class, while the average and the lower non-average groups sit in somnolent bewilderment getting nothing but obscure conceptions of the profundity of the lecturer; and not a few of the good teachers in elementary and high schools know perfectly well the bright, quick, fluent members of their classes and can see no other course of duty than that of exploiting visitors by the use of the surprising knowledge and ability of the few apparent leaders of non-average pupils of the higher type.

There are good reasons for adapting the curriculum to the uses and highest good of the largest numbers. If the subject-matter be adapted to the best in a school or class, then the middle group do not get their share of instruction while the poorest group get extremely little. If instruction and training be adapted to the poorest group, then the middle or average group will dawdle a great deal and those in the highest group will be encouraged in idleness or else they will be stupefied by inaction. Since, therefore, practical utility requires that the curriculum and the daily lessons be adapted to the middle group or average persons then *the non-average persons are not equally well provided for.* The requirements are too low for the highest group and altogether too great for the non-average persons in the lowest group.

These facts appear to be so self-evident that argument in their support would seem needless; and doubtless none will deny the desirability of better training and instruction for the non-average persons in both the highest and lowest groups. I take it further that the purpose of assigning this subject a

place in the program is not to prove a case but to suggest, if possible, some means of improving a well-known but unavoidable condition. It does not seem to me that the subject is a popular one. There is something about it that grates unpleasantly upon our professional ears. To give the subject serious treatment is an open acknowledgment of a constant defect in the great agency through which we seek public betterment.

I fear that the attention of the school superintendent is felt to be necessarily centered on the vast and necessary machinery of his system, and that he is not likely to have much energy left for such details as the individual care and treatment of children and students in his system. I believe the inequalities of instruction and training are not likely to be remedied directly through the department of administration.

In a fifth-grade schoolroom with sixty children attending daily, or a college class with a hundred members, it is conceded that instruction must be chiefly mass instruction; that the teacher and lecturer can have comparatively little direct knowledge of the individuals to be taught. The first remedy occurring to us is to divide the class and secure two instructors instead of one. All must admit the desirability and concede the impossibility of doing this on a large scale. Even if it were done the teacher in the fifth grade would still have thirty individuals in a class; the lecturer, fifty. There would still be the same grouping as before. *A*, the small group of individuals in the lead; *B*, the large group of middle-class or average individuals; and *C*, the hopeless group whom the teacher in despair feels at times like classifying as defectives; and sometimes there is an individual or a group of individuals who approach the border-line of the defectives.

Some would have an extra teacher for each schoolroom to aid the backward individuals in catching up and keeping up; but this plan is unduly expensive and it is unfair. If it were practicable and if it could offer half the time of the extra teacher to the backward individuals and half to help the talented ones to catch up with the next higher class it would more nearly approach fairness.

Some there are who would have exclusively individual instruction for each child or student. If this were practicable it would be unwise, because it could offer nothing to compensate for the interplay of student upon student which in a well-managed class of any rank or grade is almost as valuable as the instruction given by the teacher.

Instruction by lectures has this same weakness and then it is usually followed by the "quiz" which further confines the thinking of many within the narrow thought channels of one.

View the case as we may, there seems to be no external machinery which will produce the desired results. We must therefore go within the several classrooms and lecture-rooms, there to discover the means of relief or else to acknowledge that a satisfactory adjustment of the difficulty is impossible.

Perhaps ideal results can come only when all our classrooms and lecture-rooms are presided over by ideal teachers. I think normal schools and

teachers' colleges help some toward betterment; but real efficiency in reaching individually the average and non-average student cannot be secured by the mere training of mediocre persons in methods of procedure. It cannot be secured in a short period of time by any sort of emotional reform. It can be but partially effected by the instruction and training of elementary teachers. It cannot be secured through people who depend upon ready-made or hand-me-down processes learned from a book or a teacher and held in consciousness as prescriptions while being applied. It will never come through the acceptance of the doctrine, gratuitously promulgated from numerous organized circles in higher education, to the effect that a half-educated person is good enough to teach children up to and including the last day in the elementary school, while fully educated teachers must be secured for the next day in school, i. e., for the first day in the high school. Many university men are now urging that the normal schools confine themselves to the exclusive routine of drilling and training immature young high-school graduates about two years in the doctrines, prescriptions, recipes, and practices of pedagogy with a view to making and molding such high-school graduates into elementary teachers. These men do not see education as a whole. Their horizon is circumscribed by their ambitions. They would unwisely establish a caste system and take to themselves that part of the preparation of teachers which is really worth while. Wherever their creed is operative the normal schools tend gradually to become young ladies' seminaries and the more mature, forceful, capable, ambitious, prospective teachers, both men and women, go to the next best place to prepare themselves. The trouble about teachable pedagogy as a subject by itself is that the most of it is not in such organized form that the teaching of it contributes to mental virility or to scholarly habits and tastes. Hence pedagogical training and instruction unaccompanied by academic instruction is usually a pretty weak mental diet.

The fact in the case is that if anyone needs a real college education it is the teacher who guides the children through the various subjects used in the grammar-school grades; and on the other hand if anyone needs critical and available knowledge of human nature in the uncertain periods of childhood and adolescence it is the teacher of the high-school child; and it would doubtless be rash to claim that more than one-half of the high-school teachers have such knowledge or that they are likely to get it through the lecture courses in the theories of education given in the typical teachers' college or department of pedagogy in a university. But when a normal-school diploma is made to include and cover a good college education, and when a diploma from a teachers' college in the university represents knowledge of childhood and adolescence along with teaching skill gained by some kind of personal experience, and when teachers are employed in view of their personal qualities as well as their alleged training and their degrees, then there will be some hope for an approach to universally efficient instruction that will effectively reach all individuals to be instructed. And it is to be hoped that mere custom or

fashion in education will not bring about such adoration of diplomas and degrees that the personal element in teachers will not always be recognized even in the absence of the documentary evidence of qualification which institutions can offer; for really there is no means of grading or graduating persons in such a way as to show their personal worth and ability. The best that can be said of the diploma is that it is prima facie evidence of qualifications. It is not fundamental but rather a valuable and desirable conventionality.

As for the non-average individual I believe he now *has* his due share of attention and training wherever he and his average classmates have a teacher of good personality, sound scholarship, and ability to devise methods of procedure adapted to each day's needs without referring back to a book or a normal school or a teachers' college or the directions of a principal or superintendent. Such a teacher sees his class whether in school or college as made up of individuals of exceedingly diversified talents. He knows that he cannot keep the members of his class abreast of one another for a very long period of time. He knows that the brighter non-average members must, from time to time, have special promotions or be damaged by the inertia of marking time. He knows that the slow non-average individuals must for the sake of a fair understanding of subjects occasionally be reclassified or left with lower classes when the average members are promoted, i. e., they must be given more time.

Surely there is no valid reason for compelling the brighter, stronger individual to adopt continuously the slower pace of the average individual or to be promoted with solemn regularity from room to room along with his slower classmates for any period of time. And there is likewise no good defense for continually lashing the slow non-average individual to keep him ostensibly abreast of the average individual.

And again the non-average individual in a democratic country or any country cannot rightfully claim more of the teacher's attention and energy than the average individual receives. The one of high endowments cannot claim more privileges than the one of low endowments, and conversely, the dull and weak individual has no right to more attention than the bright strong one unless he can be said to get it through the occasional reclassification which takes him thru subjects a second time as classmate of younger students who are pursuing the subjects for the first time.

In conclusion: There seems to be no immediate relief for the non-average individual. Some persons are doubtless about to suggest as a remedy that we have more manual-training schools, more commercial schools, more departments of various kinds. All the new schools and departments doubtless help in their way. But the non-average individual is in all these schools and in all school and college departments and classes.

Hence the remedy lies in securing teachers and college professors of uniformly high scholarship, personal force, and professional ability and skill

along with such adjustability in grading and promoting that no individual receiving instruction will be compelled to remain very long in any class which is not adapted to his needs.

WHAT ARE THE ESSENTIALS IN SUBJECTS IN THE ELEMENTARY-SCHOOL COURSE?

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So far as education in the broad and large is concerned, we recall the fact that it had passed through many stages before it became definitely centered in a definite institution known as the school. There was a great deal of education before there were any schools as we know them. There came a time when a new education began to claim attention, and that new education consisted of the three R's, or in time it was known as the seven liberal arts. There has been many a new education since that time, and each in turn has been heralded and welcomed by one party as a fresh revelation and has been denounced by an opposing party as a mere novelty and fad.

But every great change in education has been closely interwoven with other changes, in which the whole social fabric has been involved. The essential subjects of one age have been different from the essential subjects of another age. The subjects have changed because the times have changed. Reading, writing, and arithmetic were in one stage mere accomplishments or altogether unknown. At another stage they would seem to be all in all. If so great a change as this could take place, what change may there not be? Is anything, in fact, essential at all times, and everywhere?

Whether there are really any permanent subjects or not depends on what meaning we give to the word "subject." I shall not stop to quibble concerning the term; but, simply diving in somewhere near the middle of this wide question, I should like to say that historically the most permanent subject of all seems to me that which we designate as morals and manners. And that is so because it is pre-eminently the subject which lends interest to all the rest and determines the value of all. With all the changes which have been and are yet to be, we can hardly conceive of any rounded process of education in which this subject does not hold its place, in the earliest age of history or in the last, in America, Mars, or the satellites of Sirius. So long as human nature is what it is, the practice of virtue, the making of the moral life, must be among the things that claim the chief regard of men, simply because they have the human character. And human nature is about as constant a fact as history has yet discovered. When we get beyond human nature we need not greatly concern ourselves with education.

Yet moral education differs so greatly with differing social conditions that this subject hardly seems the same in widely separated periods. At one time it is incidental to religion, at another it is mainly civic or military or industrial.

The fact is, that in all ages it has many aspects and must be approached from different sides. Which of its elements shall take the leading part will depend at any given time on the conditions of that time. Just now in the public schools of America it is primarily a civic matter. It may in the future be primarily an industrial matter. But no one aspect will ever exhaust its significance. And the chief practical consideration for us is this, that we must teach the subject of morals in many ways, direct and indirect. Among these ways, I believe direct instruction in the principles and the particulars of right and honorable conduct has a place of no small importance and should be more strongly emphasized.

When we come to consider, after this universal subject, what may be the essential subjects at any given period, as at this present period, in which we are chiefly concerned, we find we are dealing with an interesting side of social history, namely, the history of the school, in which education has become sharply defined and institutionalized. When the school fairly came into being as the organized agency of education and the only agency organized for education alone, it was only a small part of education that became its recognized function. Whatever occasional and partial organization there may have been for other parts and kinds of education, the school settled down at an early day to a narrow preoccupation with the literary side of instruction and with a few subjects closely connected with this literary side. Public education now proceeded on two parallel and for the most part disconnected lines, the education of the school on the one hand, and the education given incidentally by other agencies on the other hand. I suppose every human institution has and always will have an educational side. Education for industrial life is one of the forms of education thus left over for incidental treatment. So the industrial education of the home and of the guild, the apprenticeship system, in a word, went on side by side with the more definitely organized literary education of the school. The recent history of education is in large part the history of the expansion of that specialized educational instrumentality, the literary school, to take in some of the outlying ranges of education, and particularly its enlargement through additions from the field occupied by one form or another of apprenticeship.

There are various reasons why the school must inevitably expand in this way. The agency organized and carried on for the express purposes of education was certain to be in the long run a more effective instrument of education than that which was merely subordinate and tributary to some other purpose. The difference might not be apparent when one class of people served an apprenticeship and another class received a literary education. But with the nineteenth century, and earlier in some states, successful attempts were made to give all the people the benefit of a literary education. The contrast between the general effectiveness of school methods and the wastefulness and inequalities of apprentice methods became more clearly apparent. But certain minor advantages of apprenticeship became apparent, too, and the methods of the

schools underwent a gradual change, particularly in the way of object lessons and laboratory practice. So the school became fitted to deal with some phases of education which had hitherto been beyond its reach. Besides all this, a subtle change has been going on in men's attitude toward education. It is coming to be less a subordinate and more an independent and commanding interest. An illustration of this change, on a large scale, may be seen in certain European countries, where there is now a manifest tendency to concentrate the scattered educational activities of the government under the educational rather than the technical branches of administration. Agricultural education, for example, may logically fall under either the agricultural or the educational department. Hitherto the interest in such education has been largely agricultural and it has been under the direction of departments of agriculture. With the growth of intelligent interest in the educational bearings of the subject, there has appeared a tendency to co-ordinate agricultural education with the general educational system; and so with other branches of instruction, in science and the arts. A similar tendency appears in the gradual extension of instruction in our schools and universities, whereby certain subjects become school subjects which had long been reserved for the workshop and for the apprentice.

So it happens that our schools are coming to be broadly educational institutions instead of narrowly literary institutions. And this movement is undoubtedly to continue, for the people will that it shall be so and the whole social momentum of the time carries us in this direction. The three R's and the other subjects connected with these cannot continue to hold the field against all comers. Some of the subjects taken over from the manual arts are destined to take their place beside them.

This change we can none of us prevent if we would, and I am sure we would not prevent it if we could. But there is one thing to be done about it that in some measure we can do. We can see that the good of the old order is carried over into the new. The older subjects made for intelligence, the newer subjects make for manual skill. In order that the full value of manual skill may be realized, we need to hold fast to the earlier emphasis on pure intelligence.

The nineteenth-century ideal of education, particularly the nineteenth-century ideal in the United States, was one of the finest things in the history of civilization. It was the conception of the freeman of old Athens carried over into the new world and made an ideal for all men, forasmuch as all men shall be free. To make men wise, self-regulated, self-reliant, this was held to be a better thing than to give them mastery of a trade; for those who were so educated could turn to what they would, could master new employments as the need should arise. And whatever their labor in life might be, or the rewards of their labor, it would yield them the greatest possible values, for they would know how to use it to the higher ends, for themselves, for their friends, and for their country. We may allow something for enthusiasm and exaggerations

but fundamentally this view holds good, and I hope that with all of our pursuit of new and promising ideals, we shall keep faith with this deeply grounded conviction. Moreover, we need to put into our training for manual skill, which fills a serious lack in that earlier schooling, the same liberal spirit which characterized the old. In accordance with this spirit, we shall make the special skill of any single trade rest upon some mastery of the broad fundamentals of drawing, manual training, and free design. The subjects in the domain of manual pursuits which have the strongest claim to a place among the essentials in our courses of study are those which will give the best introduction to a wide range of special dexterities, and render the learner as free as possible to adjust himself to change of occupation or to progressive improvements in a single occupation.

Finally, with this inevitable expansion of the functions of the school, certain things will take a high place in the educational curriculum which once belonged solely to the domain of play. For generations our schools have made place for free play, but merely as recreation from tasks. Now with the tendency to a hardening of social conditions, particularly in our large cities, play becomes almost as important a consideration in the schools as work. We need it more than ever for health; we need it that the few and precious hours of leisure may be made refreshing and not debasing; we need it to give flexibility and freedom to the spirit of the individual, now hard-pressed by the growing crowd and the struggle for existence; we need it that the moving of pure joy among our people may carry us toward the finer forms of expression and give us a spontaneous national art.

Let me speak of only one subject here, which belongs to the common ground of art and play. We need music in our modern life, almost as much as we need bread; and we need it in our schools almost as much as we need the multiplication table. We need it in our lives, not only to help us worship, but that we may carry away something better than a ringing headache from our precious hours of diversion. We need it in our schools, not as a tolerated fad, but as one of the things that shall make our individual and national character.

In fact, the sum of all I have tried to say is this: That the fads and luxuries of one age may be the necessities of another. We must take on new studies with a new age; and we must bind the old and the new together by an everlasting moral conviction, and an everlasting insistence on that intelligence that shall make men free.

DISCUSSION

Clarence F. Carroll, superintendent of schools, Rochester, N. Y.—In general we most heartily agree with the theories relating to the school curriculum, advanced by our honored commissioner of education. I am impelled to add that it gives me great pleasure to express my appreciation of the general tone of the paper, and the attitude of the man who takes his place today as our leader in this association. Our commissioner is facing the

future, studying its great problems, and making himself a part of the present. All the great questions that interest us are evidently upon his mind and heart, and his utterance today gives us assurance, not only of scholarship and leadership, but of co-operation in our varied and heavy responsibility.

In one particular I must differ with the opinion expressed in the paper, which was, that there is little continuity in the school curriculum. I agree with the main contention, the cheering and vital statement that our curriculum must be adjusted to present needs, that it must depend much upon environment, but to my mind there has been wonderful continuity in ages past in the curriculum of the schools. I think it was Huxley who said that if the Greek boy of 2,000 years ago could be brought back to life and placed in one of our schools of 50 years ago he would find himself quite at home. Mathematics, reading, spelling, writing, rhetoric, these have ever been the supposed basis of intellectual discipline.

In what I have to say I shall attempt to show the contrast between this older form of discipline and the cultural tendency of the present hour. The old curriculum and the old school represented separation, isolation, desolation. The subjects studied were implements. In and of themselves they did not produce intelligence. A person might pass 100 per cent. in arithmetic, grammar, reading, and spelling and yet be declared ignorant and unfit to become a member of an average social group.

If under the old system men and women attained to intelligence it was not necessarily because of the influence of these subjects but generally in spite of it. Fifty years ago or more new educational influences became evident in the community. Of course these influences had long been operating, but certainly in the best homes there was a new interest in the activities of children. By children's activities I mean their play and games, their hand work, their physical interests, in fact all that relates to their developing life. The name of Froebel may in general stand for this new element in our civilization.

A new interest in the real in education appeared about the same time. The names of Humboldt and Agassiz express the change which I have in mind. The study of nature at first hand; a study of the great world and an examination of the concrete in the laboratory epitomized this change in the view point of educators. The "laboratory" method is now applied by every true teacher in every variety of instruction.

Again, the presence of books for children marks a new era. The school and the home are now filled with publications adapted to the great world of childhood and are an indispensable factor in every variety of educational enterprise.

Finally, culture represented by music, drawing, and art products, generally, in the home and in the school, were added to the list. Out of all these grew a new social relation uniting the child to the adult in sympathy and effort, and correlating subjects of study that had before been unrelated.

We no longer think of the child as in an inclosure receiving light through little windows, but from the first he is a citizen of the world in the midst of the currents, social, intellectual and physical, which imply his growth, morally, socially, and spiritually, no less than intellectually.

With the dawn of these influences there came almost instantly a demand that the school share in their advancement. Public sentiment quickly crystallized, and we had the marvelous educational revolution that swept over the country some twenty five or more years ago. Every school and community felt its touch; every school board ordered a new course of study; every state legislature modified the minimum requirements. For a time we heard the cry that the curriculum was crowded, but who shall say that it is so full that no other subject can be admitted? In a city of 200,000 inhabitants on one day of last week two sets of petitioners appeared at the same meeting of the school board. One of these bore a petition of the German-speaking element asking first that gymnastics, as understood by the German people, be admitted and introduced into the public-school

system. They further urged that the German language be pursued by children whose parents might elect for them the study of this subject. The second set of petitioners asked if the board of education would be willing to expend a considerable sum of money which they believed the mayor and the city council were ready to contribute for the support of play grounds, summer vacation schools, and social centers.

In the city of Boston a few weeks since there assembled a great national organization known as the "Social Education Association." A month later another great national body, "The Religious Education Association," assembled in the city of Rochester, N. Y. Each of these national associations was represented by about sixty-five speakers, most of them men of note in religious, moral, and educational lines.

The plea of the speakers at these meetings was for co-operation between the home, the school, and the church in the advancement of moral, religious, and social education. They claimed that neither the home nor the church nor the school could longer work effectively alone; that each must depend upon the other, and moreover that the school was but a part of the great circle of education in which the community must now interest itself, and for which it must become responsible. This larger circle includes the interest of the congested quarters of the large cities. It has to do with the homes of the poor, the ignorant, the indifferent. In the changed conditions of the city and the startling degradation of many homes it is assumed that these three great forces in education must make themselves absolutely responsible for social betterment; that they must seek to reach not only every home but every individual member of every home where such assistance is needed in order that we may preserve our citizenship, our place as a nation, and our usefulness in the world.

Who then shall say that the curriculum is completed or even that it is crowded, as an answer to the demand that the school shall actively co-operate in this work of reconstruction and salvation: for it includes both of these.

It goes without saying that we often expect too much from the school and that we might easily, and perhaps do, often attempt too much, but the remedy is not found in reducing the number of subjects. We may go much farther and say that there is not an intelligent teacher in America who would consent that music, drawing, or manual training, or industrial or domestic art be withdrawn from the curriculum. The remedy has been stated and proposed many times at these meetings, and it is only necessary that I repeat here again that we must address ourselves to reducing to the mass of superfluous and unimportant requirements found especially in the old-line subjects of our curriculum, and of so adjusting and regulating and correlating the subjects taught that we shall make not only more simple, but more interesting, the curriculum as a whole, for in the midst of complexity properly organized we may reach the highest degree of simplicity. It is of interest here to note that there has not of late been heard in this organization a notable objection to the theory which I have attempted to emphasize, and which was so ably and fully set forth by our commissioner. Any person, who offers such an objection, if not antisocial, is at least out of touch with the influences that must prevail, and is entitled to our sympathy.

It is interesting here to note that in our cities great enterprises are under way and are organized, quite independently, to promote the advancement of these ends.

You will recall that upon this platform on Tuesday morning one of the lady speakers stated that in Chicago alone, there are about fifty organizations of women who make it their business to do social and educational work in the interest of all classes. Another lady reminded us that these organizations could never wait for the co-operation or even the approval of members of boards of education, common councils, or even of superintendents. The work demands haste; is urgent, imperative. If, as always happens, at some later hour and date, these more formal bodies come to their assistance, well and good; but the official and the formal can never be depended upon to do the very greatest

work in the world, and so the women of America and of Chicago have ever been leaders of this great movement. Women brought into America the kindergarten; they installed manual training, cooking, and sewing, and slowly but surely public sentiment has compelled city councils and boards of education to approve and adopt the measures which they have thus originated. This initiative of women is one of the finest spectacles of the last century. History will recall, as we cannot tell today, the true significance of their efforts. In no other nation, at no other period in history, has such a mighty revolution occurred as we have seen in fifty years, and while many other forces have contributed to this change, it must forever remain true that women have led the way and deserve the credit for very much of what has been accomplished.

Let us not fail to emphasize the statement of the commissioner of education which was in effect that that which is old and tried is invaluable and worthy of our respect, and should be embodied in every new theory of progress.

In conversation with two gentlemen with whom I visited schools on Monday, in order that I might have the benefit of their judgment, I asked, "How shall we absorb the new into the old so that both may be preserved?" One of these men quickly replied, "We must eliminate everything nonessential from every subject in the curriculum, and confine ourselves closely to types and representative parts of subjects," and without an instant's delay the second added, "We must learn to do the most possible in the shortest time, suggesting the difference in skill which marks the work of different teachers."

Again on this platform on Tuesday morning a lady, who is the honored head of the Chicago Normal School, said, that poor instruction is the most stupefying influence today to be found in the public schools. She pleaded earnestly and nobly for the highest standard of supervision, suggesting at least that the principal of the school and the expert should be selected and retained only on the basis of merit.

Just what may we expect from the public schools in connection with the curriculum? It is largely a local question. The state legislature may enact laws; the board of education may prescribe rules and curricula; the superintendent may issue circulars and reports, and so on, all along the line, but the spirit and skill in the management of each public school must determine the measure of attainment in instruction, the success of each pupil in his recapitulation of the history of the race, and in the attainment of a social and intellectual standard.

In this country at least much depends upon the local standard. This is democratic; this is the explanation of whatever excellence our system has attained that distinguishes it sharply from the fixed and inflexible methods seen abroad, where one school may be truly said to be like another. Recognizing all that the community has accomplished and all that public sentiment demands, it is yet true that in our present civilization the teacher is, today, the most important element in the reconstruction and saving of our citizenship, and the most important factor in determining the aims and ideas which shall govern the future.

F. D. Boynton, superintendent of schools, Ithaca, New York.—One of the essentials in the elementary course of study is the home reading of the child. Children will read. It is astonishing how much, as well as what. Scores of Ithaca boys and girls are reading a book at home every week.

The question is this: Are our children to be directed in this part of their education by their immature judgment or as their untutored companions dictate, or shall we undertake to direct this part of their education?

I am persuaded that this home reading is of more importance than much of the work now done in arithmetic, geography, and grammar. We are exceedingly anxious about the influence of evil companions, in short but what about the influence of the companions in books? What are the impressions being made when a child becomes absorbed in a book?

Our duty is clear. We must arrange extensive courses in supplemental reading for the school, and we must arrange and provide for the reading in the home. In the formative period we must see to it that the reading of the child is directed to the best in fairy tale and fable, in folklore and hero tales, in mythology, biography, and history, in travel, adventure, and general literature. In no other way can we illuminate the course of study better; in no other way can we brighten the lives, cheer the homes, or increase the future usefulness of the children intrusted to our care.

GRACE REED, principal of John B. Drake school, Chicago, Ill.—Commissioner Brown spoke of the fact that Germany had placed agriculture and industrial arts under the department of education. In the Middle Ages when agriculture and industrial activities were the work of the ignorant clod, the upper classes did not suspect that they would become science and art.

The poet Wieland said: "In jedem Menschen ist Etwas von allen Menschen." (In every man is something of all men.) As our sense of humanity broadens, we recognize the equal dignity of every useful activity. There is possibly more benefit to the race from the reflex or subjective influence coming from the study of agriculture and the trades than ever accrues from the mechanical performance of these labors, as it makes man more fully conscious of that fundamental kinship of which the poet speaks.

Industrial training is an end in education, not a means to educate. There should be an industrial course of one or two years as a continuation of the elementary-school education. In order that it need not be necessary that a "workingman must always remain a workingman," a foundation of general mental culture must be given, a training of the judgment and refining of the perception, which come only through exercise of mental faculties. To this clue to higher attainment all children are entitled by the rights of humanity. But a full preparation for life entitles them further to an acquaintance with the systems of industrial production. There is much legitimate objection to trade schools. Such schools would tend to turn children into trades which they would perhaps never have thought of entering, simply because of the training offered, thus swamping such trades with workers. If an apprentice school were opened this difficulty would not exist, because only those are trained who have made their final choice of trade on other grounds than the great handiness of the preparation offered.

The elementary and high school are doing excellent work and are as comprehensive in their curricula as is consistent with equipment and youthful capacity, and multitudes of other important considerations. They are perhaps too comprehensive for the best results to be obtainable. It is not wise to vitiate the efficacy of this system of education by overwhelming it with other distinctly different systems crowded into it. What we need is a separate order of continuation—schools of industrial arts, where elementary graduates, not wishing to follow higher training for professional callings, may receive training in the practice of the trades but not where they are turned out finished in any trade.

F. LOUIS SOLDAN, superintendent of instruction, of city schools, St. Louis, Mo.—We must look to the children for the best answer to the question of what the essentials are. All the art of teaching consists in creating an appropriate reaction in the child. Great importance is properly attached to the method by which the teacher presents a topic of instruction. But far more important is the way in which the child receives it; whether it causes him to think, to assimilate, to act, and live in the right way. To create proper reactions, a very minute classification of the children by grades of ability is not necessary. Each one of fifty or sixty children will react just as surely, if they are handled by a skilful teacher, as will one child or a small group. Small groups in teaching are not necessary. A class can, as a rule, be more effectively taught than a single individual. The educational reaction may be different in different children, but in a fairly well-graded group of children the reactions are similar.

CHARLES A. MCMURRY, acting president State Normal School, California, Pa.—The chief question under discussion is: What are the essentials, or fundamentals, of our course of study?

For more than a generation we have been multiplying studies and filling up the common-school curriculum with new materials. But we have failed thus far to organize this great quantity of knowledge on any consistent plan. Our school course is to a great extent an unorganized collection of heterogeneous facts, and by constant additions it is becoming still more congested. The really important question is how to simplify and organize this increasing body of knowledge materials. It is a problem of eliminating the useless and obsolete materials that have been collected. We must clear our course of its superfluities. The teachers who are actually engaged in instruction and realize the overloading are calling upon superintendents for relief. Many superintendents are slow to realize the situation because they are not actual teachers.

In order to grasp the real issue we may say that a course of study should center upon a few leading ideas in each study, and not upon a multitude of mere facts. Our school course is now decidedly materialistic, in the sense that it emphasizes facts rather than ideas. Important ideas are the vital organizing centers of the school course. A single idea may organize and illuminate a multitude of facts. But many even good superintendents do not realize that our present course of study contains a large quantity of facts, very poorly permeated with ideas, in other words, dead material, making education itself, as it were, materialistic, wooden.

This materialistic routine, which has fastened itself upon the schools, needs above all to be permeated with the leaven of ideas, something to break the dead uniformity of memory drills and unthinking study.

REPORT OF THE COMMITTEE ON HISTORY

J. H. VAN SICKLE, SUPERINTENDENT OF SCHOOLS, BALTIMORE, MD.

(Representing the Committee of Eight of the American Historical Association)

It seems advisable first to explain that this committee is a committee appointed by the American Historical Association, and that it is granted this place on the program of the Department of Superintendence in order that it may present to superintendents of schools the aim, the scope, and the present state of its work. It is the desire of the Historical Association to enlist your interest so that the report, when completed, may receive at least your careful consideration.

The American Historical Association, a great national organization of historians and teachers of history, is well equipped for such work as it has undertaken, through a delegated committee, in the preparation of a course in history for elementary schools; but its labors will avail little unless superintendents of schools generally see in the course proposed a scheme of work that bids fair to put an end to the chaotic condition in which elementary instruction in history finds itself.

The first co-operative attempt to improve the teaching of history was made in 1883. Ten years later came the conference of the Committee of Ten at the University of Wisconsin, and, growing out of this, the Columbian Conference and the appointment of the Committee of Seven. Later, several associations

of history teachers were formed: The New England Association; the North Central Association; that of Nebraska; that of California; that of Indiana; and that of the Middle States and Maryland. Through their co-operative efforts a consistent course in history has been planned for secondary schools and widely adopted, and a beginning made in the modification of elementary courses.

A study made by Professor Monroe, of Columbia University, under the auspices of the Association of the Middle States and Maryland, embracing the elementary curricula of fifty cities, selected from various parts of the United States, discloses the fact that there is great discrepancy as to the grades in which history is taught, the time allotment for the subject, and the organization of material. There was absolutely no agreement on the list of topics and the order of their appearance in the grades. The condition was found to be even more chaotic in rural schools. The general result of the investigation was to demonstrate that there is only one subject in the elementary school which possesses a less definite organization—and that is nature-study. In a similar way, this and other investigations reveal no uniformity in the conception of the purpose of history teaching.

Prompted by the obvious needs of the situation, the American Historical Association decided two years ago to appoint a committee of eight of its members, each of whom was at the same time a member of one of the local associations and familiar with its work, to prepare a course which it is hoped will be generally acceptable. The committee with Professor J. A. James, of Northwestern University as chairman, includes two representatives from normal schools, Miss Hill, of Lowell, and Professor Thurston, of Chicago; two university teachers of history, the chairman and Professor Bourne, of Cleveland; a head of a well-known private school, who is also a professor of education, Dr. Julius Sachs, of Teachers' College; and three superintendents of city schools—members of this Department—Messrs. Gordy, of Springfield; Brooks, of Greensboro; and Van Sickle, of Baltimore.

It has been the aim of the Historical Association to have its committee thoroughly representative, not only by reason of the varied educational interests of its members, but also by reason of their geographical distribution—New England, the Middle States, the South, and the Middle West are all represented.

It is not a committee predominantly representative of university interests. The chairman has held responsible positions both in elementary and secondary schools, and he has children now attending the elementary schools. The same may be said of Professor Bourne. Furthermore, the one is now devoting himself to American history, the other to European—for our purpose an ideal combination of interests.

Professor Thurston, formerly of the Chicago Normal School, now chief probation officer of the Juvenile Court, is pre-eminently qualified to deal with the correlation of history and civics. Miss Hill, of Lowell, and Dr. Sachs, of

New York, are constantly studying elementary-school problems. The three members of the Department of Superintendence who are members of the committee are continually alive, as in fact, are all the others, to the questions as to whether proposed plans will work well in practice under ordinary school conditions. We have all been in frequent consultation with teachers of the various grades and have had the benefit of their views. We believe the course proposed is a thoroughly practical one.

The following topics have been considered by subcommittees and reported on at regular meetings of the whole committee: (1) suggestions for a course of study for the first four grades; (2) suggestions for a course of study for the last four grades; (3) European background; (4) elementary history in European schools; (5) relation of history to geography, literature, and art; (6) suggestive methods, textbooks, and supplementary material; (7) civics in elementary schools; (8) what preparation for teaching history should be expected of the teacher in the grades; (9) what has thus far been accomplished in the formation of a course of study in history for the elementary schools?

The task of the committee is in many respects a more difficult and delicate one than that of forming a course for secondary schools. We have in a certain sense a more limited field to traverse. The youth and the immaturity of our pupils narrow our scope; but we must develop in our young pupils the capacity to benefit by the upper courses of instruction or by opportunities for study outside of the schoolrooms. We must therefore be careful not to arouse distaste or engender indifference, either by bad selection of subject-matter or by bad methods of presentation. Since history must be considered one of the most valuable cultural contributions to the efficiency of each new generation, the first steps are quite as important as the work of the university.

The general conclusions of the committee have been stated by the chairman as follows:

"It is believed that a leading aim in history teaching is to help the child to appreciate what his fellows are doing, and to help him to *intelligent voluntary action* in agreement or disagreement with them. To accomplish these results there must be continuous attention in each of the grades to contemporary problems suitable to his intelligence, and also attention to events in the past that he can understand. The following fields of human activity must furnish these events: political, industrial, social, religious. And no one of them should exclude the others. In the first four grades, while the teaching must be incidental, it will serve to give a correct attitude toward later history.

The teaching of history must be closely related to instruction in other subjects of the elementary program. This feature has been emphasized by the committee, and the dependence of history teaching upon geography, literature, and art, is given due recognition. History and civics also should be presented as allied subjects, emphasis being placed now on the history, and now on present civics.

The committee believes that the subject-matter for a course in the elemen-

tary schools should be selected from American history. But this is not to be interpreted in a restricted sense. The pupil must be led to understand that American civilization and institutions have their beginnings under European surroundings, and that the problems of our national life, even to the close of the first quarter of the nineteenth century, were in a large measure closely connected with European problems."

The committee has under consideration for fourth and fifth grades a series of well-selected American biographies. In these grades there is no attempt to do more than give vivid pictures of men and their times, but the pictures or stories are arranged in sequence, so that the children may unconsciously gain a feeling of the close connection of each story with those preceding and those following. Pupils in these early grades are not prepared to take up causes and effects in any logical way.

The considerations which guide in the presentation of the material for the sixth grade are stated in the report as follows: "First, a desire to emphasize geographical facts, not alone those which form a part of the history of the discoveries of the fifteenth and sixteenth centuries, but also the simpler incidents of previous geographical discoveries. Second, the desire to put the facts of emigration to America in connection with earlier movements of peoples. Third, the effort to show in a very simple way the civilizations which form the heritage of those who were to go to America; that is, to explain what America started with. Lastly, to associate the three or four peoples of Europe which were to have a share in American civilization with enough of their characteristic incidents to give the child some feeling for the names, England, France, Spain, and Holland. The period of the discoveries should also be included in the work of this grade.

In the seventh grade should be considered the exploration and settlement of North America and growth of the colonies, with accompanying European background, through the period of the Revolution. To the eighth grade would be assigned the formation and inauguration of the new government; the industrial and political development of the United States; westward expansion; and the growth of rival European nations.

The committee is further agreed that American history should be treated in carefully delimited stages, each period as fully presented at a given point in the curriculum as the maturity of the pupils will permit. The plan of the entire course is based on the proposition that the history teaching in the elementary schools shall be focused around American history, but that American history shall be regarded as distinctly related to and developed out of the history of the surrounding world; and that if we would maintain interest throughout the course we must avoid the recurrence in successive years of the same subject-matter.

The method that should prevail is the method that characterizes the good story teller. Our history teaching in the past has failed largely because it has not been picturesque enough. There has been so much repetition in

successive years that the charm of novelty was absent. Interest has been forestalled. The committee has steadily kept in mind the demands of the hour, the capacity of the teachers as they are now. The grouping of the work is so flexible that, while it affords scope for the most talented teacher, yet the teacher of lesser attainments, of restricted information, can make it the basis of a measurably satisfactory presentation; for, except in portions of the outline, where the ground covered is quite familiar, the suggestions and helps are abundant, and the syllabi are worked out in considerable detail. This is notably true of the outline for the sixth grade, where this course differs most from former ones; where, in order to understand the peoples who followed Columbus, Cabot, and Cartier across the Atlantic, we take up those characteristics and incidents in European history that are essential to this purpose. The committee believe that too much emphasis has been laid upon the Atlantic as a natural boundary, not merely of the American continent, but also of the history of America, and in presenting a course embodying this view they feel bound to give the teacher all the assistance that a detailed syllabus can afford. This makes the sixth-grade outline seem at first glance more formidable than it really is."

On the point as to whether so much help is needed, a speaker at the Providence meeting, where our report was presented in December, made the following comment: "The grade teachers need and desire just such pedagogical 'apparatus' as they find in our newer textbooks, and just such detailed syllabi as this. The day has not yet come when the majority of those who have to teach history in the grades can be trained specialists in that work. From time to time they have heard discourses, and read treatises on the principles and methods of teaching this subject, but these are comparatively meaningless to them unless supplemented by lists of topics with references and specific suggestions like those included in this report."

It is the belief of the committee that if this course, in its vital features, meets the views of the superintendents and teachers, there will come into being more than one series of history texts—some simpler, some more detailed—that will carry into practice the points of view it embodies. We are dependent in this country, if we would gradually emerge from the hopeless diversity that characterizes our history teaching, upon concentrated efforts like the present one.

MINIMUM QUALIFICATIONS OF THE ELEMENTARY TEACHER

ASHLEY VAN STORM, SUPERINTENDENT CITY SCHOOLS, IOWA CITY, IA.

The writer approaches this topic with some trepidation. It may not be true that "there is nothing new under the sun," yet it certainly seems that everything has been said upon the qualifications of the teacher. Everyone from the writer on pedagogy to the crossroads orator has for years expressed him-

self upon the qualifications that should distinguish the teacher from other and supposedly more common clay. I fear I cannot add anything to the mountain of material heaped high long years ago, and thrashed annually or oftener ever since, regarding the qualifications of the ideal teacher.

But our worthy president has added to the topic some modifying terms which may create lines of cleavage and bring great good from the discussion. I do not hope to exhaust the subject nor to add to your stock of knowledge, but shall be more than rewarded if I may succeed in setting forth the salient points in a manner that shall provoke full and free expression of opinion on the part of those present. The modifying terms which add zest to the topic are "minimum" qualifications and "elementary" teacher.

What shall be the standard by means of which we measure the minimum qualifications of this elementary teacher? Shall it be that of the rural or the more recently settled portions of our country, the slum districts of our large cities, the aristocratic portions of these same cities, the villages of our middle states, the schools of the mountain people of some portions of our land, the rural colored schools, the Indian schools, or some other of the multitudinous phases of elementary education presented by our widespread and varying population?

Again, from whose point of view shall we examine this problem? If we were a legislative body seeking to establish legal requirements for teachers it would be our duty to make an exhaustive inquiry into the qualifications established by law in the various states, to discuss fully the likenesses and differences, the advantages and disadvantages, of all the various provisions, and to suggest a body of laws on the subject fit to be enacted for the government which we represent. But we represent the entire United States, and wisely or unwisely education has not yet been brought to any extent under federal control. However wise and beneficial federal control of education might be in some regards, there are many reasons why its advent would not be hailed as an unqualified blessing. It is very certain that no minimum requirements for certification of teachers could be established that would be wise or just as a uniform standard for our entire domain. Even if such legislation were wise, we are not legislators. More than that we represent a profession the members of which exert, proverbially, far less influence with those who do legislate than any other class of people who hold so important a position in the machinery of civilization.

If we were a board of equalization seeking to determine the qualifications to be demanded of teachers in the light of the cash recompense made for the services rendered, we could quickly formulate our report and adjourn. It would run something like this:

Maximum qualifications which the public has a right to demand of the elementary teacher based upon the cash return which said public gives for the services rendered as shown by the report of the Committee of the National Educational Association on Salaries, Tenure, and Pensions of Public School

Teachers in the United States, July, 1905, pp. 146, 147, 148, wherein it is shown that in 44 of 48 cities the minimum salaries of elementary teachers are less than the wages paid to laborers on the streets and sewers, and in two of the remaining four cities the laborers were colored while the teachers were white; in the remaining two cities the minimum wages of the elementary teacher was slightly higher than the street and sewer laborers. And in all of these instances the employers were the same—the municipality.

Following are the maximum qualifications suggested.

Reading.—Should be able to read the ballot with assistance and to read unaided the red headline of the yellow newspaper.

Arithmetic.—Should be able to count one at caucuses and similar gatherings. To count one is sometimes as helpful as to count eleven—especially on a jury.

Language.—Should understand such idioms as "time to stop for dinner," "today is payday," etc., and should be able to ask for shorter hours or larger pay (an interpreter may be allowed for this last).

Writing.—Should be able to sign a petition, remonstrance, protest, or other paper of service to his friends.

Music.—May win special promotion if able to run the (city) scales. If incapable of singing by note, paying by note will be accepted if accompanied by an additional signature. Should know a few significant songs, such as "We've Three Square Meals a Day at Home since Dad Joined the Police," or, "Everybody Works the Teacher."

Art.—Choice of color, not material; love of yellow no disqualification.

Drawing.—Should readily draw the inference that if the right man is elected the right men will be given jobs.

Construction.—May be a joiner if he joins the right organization.

Previous experience.—None required.

Moral quality.—Not considered to be of any value to the municipality, hence no requirement.

Taste in dress and general outward appearance.—Immaterial.

Sympathetic devotion to the most vital interests of the community.—Immaterial.

Tendency to support and sustain the hand that parsimoniously pays rather than to strike or shirk.—Immaterial.

Geography.—Should know the way to the caucus, the polling-place, and the city hall (no objection to the candidate knowing the way to the cemetery, tho it is not necessary, as he will be shown in due time; tho it may be well to know the way to the poorhouse, for he may have to go there alone some time).

But we are not a board of equalization with power to adjust the cash recompense on one hand, to the qualifications and service rendered on the other, or a greater degree of equity would prevail than now does, and it would not be brought about by a reduction of the minimum qualifications or of the service.

If we were a convention of county superintendents in a state of my acquaintance, called for the purpose of considering ways and means of procuring a sufficient number of teachers to fill the schools, we could state our conclusion on this whole matter of what the minimum qualifications of the elementary teacher should be by telling that story wherein it is related of Lincoln, that two friends, after having argued with each other long and vigorously but indecisively the question of the proper length of a man's legs, sought Mr. Lincoln's

opinion, which he rendered in the laconic and convincing statement that it had been his opinion for some time that a man's legs ought to be long enough to reach from his body to the ground. So with the qualifications of the elementary teacher. They must be such as to enable the supply to connect with the demand.

But we are not county superintendents oppressed by the necessity of finding enough teachers to operate the schools almost regardless of minimum legal qualifications, nor is it ours to account for the difficulty of that problem. If it were we would not have far to search, and we would probably find the principal answer in the field of economics.

But we are a group of superintendents largely from the cities and towns. Our duties are principally executive and supervisory. It is not ours to determine the legal qualifications of the teacher, though these may materially affect our problem. It is not ours to determine the financial return that shall come to the teacher, though a better solution of this problem would assist us much in solving the one that is particularly ours. Our standard of determining what the minimum qualifications of the elementary teacher ought to be is neither the statute nor the exchequer.

Our experience has consisted in selecting teachers, in observing the character of their work and influence, and in seeking to improve their efficiency. In the performance of these duties we have been more or less favorably impressed by the results attained by teachers of different qualifications. Consciously or unconsciously, our ideals of what constitute the proper qualifications of the elementary teacher have been formed and reformed by our individual experiences and observations. From our study of children and books we have some ideals of the kind of treatment that should belong to elementary education.

Regarding the details of the qualifications of this elementary teacher we may hold more or less widely differing opinions; but we shall probably agree that the most vital and fundamental standard by means of which we are to test the proper qualifications which she should possess is the needs of child life during the period of the elementary-school experience in our American republic and in the particular environment; and that secondary to this and conditioned upon it is the principle that the qualifications of the elementary teacher shall be determined by the character of the subject-matter of the proper course of study to be pursued by the child under the conditions stated above. Another determining factor may be mentioned which is still more subordinate—the particular kind of system or school organization of which the teacher may be a part.

It scarcely needs stating, and certainly does not require proving, that all teachers should be honest, upright, just, tidy, orderly, punctual, alert, patient, chaste, healthy, sober, industrious, of good clean personal habits, of good report, and distinguished by all the virtues that mark the most exalted moral character and mental acumen.

While in times of scarcity it would be permissible, and indeed would be necessary, to lower temporarily the requirements in desirable mental characteristics or educational equipment, yet no necessity should be so grave as to make it expedient to lower the minimum moral standard below the common and homely virtues of honesty, uprightness, chastity, purity of personal life, and cleanliness of personal habits. If the minimum moral qualifications were to be less than these, the intellectual and educational advancement of the child, no matter how pronounced, would not give a suitable return for the moral contamination or the lowering of the moral ideals of the child that would result from such associations.

In addition to the qualifications already mentioned, our teacher should have religious principle. The church and the state, as such, are by enactment and common custom understood to be officially separate, and our system of public education being a child of the state is necessarily separated from the church as a denominational organization. But a profound belief in the fatherhood of God and the brotherhood of man, in moral right and wrong, in personal moral responsibility, in obligation to one's time and generation, in the presence of cause and effect in the moral world, in the ultimate triumph of right and righteousness—all these are invaluable as foundations upon which to build a character for the elementary teacher. She must have a philosophy of life, and in order to have it rich and strong and stable and secure and fruitful it must have some such foundations as these.

Then will she have the next essential, which is the spirit of the true missionary. She must believe fervently that "Greater love hath no man than this that he give up his life for his friend." As has been shown, she cannot hope to receive adequate return for her labors in cash or "bankable paper." Only this spirit of the missionary will enable her to give daily and yearly more than she receives and at the close to sign cheerfully a receipt in full for the unpaid balance. And yet this last she must do if she is to be sweet, and kind, and loving, and sympathetic, and is to continue so to the end. And will our ideals of the minimum permit us to be satisfied with anything less? No character constructively optimistic can endure to great age in such work as teaching with its foundations upon the sands of atheism, of chance, of selfishness. If the elementary teacher has her character well founded on the rock of religious principles and a sound philosophy of existence, and has a clear conception of the scope and effect of elementary teaching, she will have added to her equipment two other valuable qualifications—courage and pride.

All paths of duty not only lead to the grave but lie through a multitude of discouragements and difficulties, and in none are they more numerous or more vexatious than in that of the elementary teacher. And if she is to pursue it with an erect head, a calm brow, a clear eye, and smiling lips, she must be sustained by the courage and pride born of a knowledge of the righteousness of the cause and the efficiency of the service. Such a teacher will be an optimist from principle, from practice, and from force of habit; and an opti-

mist she should be if she is to fulfil even the minimum requirements. The entrance bars to the profession should never be dropped so low as to welcome a pessimist into the ranks. Perhaps a few adults firmly fixed in their views of life may be subjected to the baneful effects of a pessimist without injury, but a child of elementary-school age, resilient though his spirit may be, should not be called upon to have it blighted by the withering presence of a pessimistic teacher.

Our properly qualified elementary teacher will always have an outlook—an outlook for herself, for the individual child, for the school, and for the cause of education. The sun will always be gilding the mountain-tops of her horizon somewhere. Flowers will always be blooming for her somewhere—on the hillside, in the sheltered wood, in the crannied wall, or it may be under the snow—but somewhere. There will always be a way open for her to improve herself or a pupil or her school or a friend. As she rises from point to point, "from glory to glory," her horizon grows larger and her atmosphere clearer. The errors and limitations of her former experiences she puts under foot, and enlarges her outlook as she increases her growth. And she never ceases to grow. Beware of the elementary teacher, whatever her present attainment, if she has lost the power of growth. One of the most valuable capabilities possessed by a superintendent is his ability to select teachers possessing large grace of growth, and one of the most essential minimum qualifications for an elementary teacher is this same potentiality for progress.

A great source of power for the promotion of growth is enthusiasm. Not the fitful, intermittent, volatile enthusiasm, which rises and falls at momentary intervals like the choppy waves of a shallow and narrowly circumscribed lake, leading her to start all sorts of wild projects without mature deliberation as to their value or chance of success, only to regret the beginning and drop them long before completion, and which causes her to flit about wasting her own time and worse than wasting that of the pupils by purposeless work; but a strong, sustaining swell of enthusiasm, that against all unwarranted opposition, petty annoyances, difficulties, and discouragements, carries her onward like a mighty tidal wave, making every word spoken and every step taken count for progress for herself and the child. There can be such an enthusiasm without loss of poise and balance which are equally important with it. In such a presence many an elementary pupil, already overcharged with activity unconsciously and imperceptibly develops a strong, helpful self-possession and self-control that make for real education.

She should possess aptness of illustration. Logical definition and argumentation supplant it in part with those more mature, but neither definition nor argumentation are effective with the youthful mind, and hence the great need of power to illustrate on the part of the elementary teacher.

She should be able to originate—should have the power of initiative. In what directions and to what degree she may have an opportunity of exercising this will depend very largely upon the characteristics of the system to which

she belongs. Strange as it may seem, the place wherein there is the greatest need for this quality and where it finds its largest opportunity for growth and development is in the rural schools. Here where the only factors are the pupils, the books, and the teacher, with a director or board in the dim distance, the teacher is supreme. She determines the course of study, the methods of instruction, the rate of progress, the entire régime of discipline, rewards, reports, promotions, classifications, *et cetera*. What a glorious field for the exercise of the genius of initiative! And perhaps this absolute freedom to exercise the teacher's genius accounts for the wonderful effects produced in some such schools when the right teacher has been found. In our city systems there is less opportunity for the free play of this particular power of the elementary teacher. The course of study, the books, the method of treatment, the classification and promotion of pupils, the actions of pupils in the rooms, in the halls, upon the playgrounds, the time, mode, and character of punishments, and a multitude of other matters large and small are settled and determined by some other authority than her own. In such a system the elementary teacher needs a somewhat different characteristic—the ability successfully to execute the plans of others. This is as essential in our large city systems as is the other in our rural districts. The presence of one of these qualifications in a teacher does not need to exclude the other. The well-balanced teacher can follow the plans of another or can originate her own when needful. The rural teacher and the city teacher each needs a good supply of both powers. Then the system should be so changed as to let the schools reap the greatest advantage of the possession of these qualifications by the teacher. The rural teacher should be given closer and more helpful supervision, while the city teacher should be released from some of her bonds and allowed a larger opportunity for initiative. I hasten past the general but universally accepted qualities of tactfulness, alert discernment, all-round efficiency, as general qualifications essential alike to all teachers, and take up one that is more essential to the elementary teacher than to any other—the ability to interpret the child's environment to him. The purposes and plans of elementary education differ greatly from those that mark the high school and college, since the child at elementary-school age differs from the student of high-school or college age. As a consequence the teacher for the elementary school should differ from the one needed in high school or college. The child enters the elementary school with all his senses keenly alive to the world of things about and with appetite whetted by his five or six years of contact with it at home. His ethical world which was a very simple and circumscribed one has suddenly become enlarged in area and complex in relation. For the next six or eight years his time and energy are to be devoted to collecting, absorbing, remembering, assorting, and arranging concrete data, and in an elementary way discovering his relations to these ethical and material worlds and adjusting himself to them. As the physical child grows rapidly during these years, so the mental child feeds voraciously

on the concrete world about him. To keep the appetite sound, the digestion strong, and the assimilation perfect are some of the tasks of the elementary teacher.

For the successful accomplishment of these tasks the teacher must know the child and his environing world, and must know this world from the child's point of view as well as from her own. Her knowledge of the child should be generic and specific, rational and empirical, scientific and yet eminently practical. While it is not necessary that she have technical knowledge of the old type of faculty psychology, she should be familiar with the newer type of psychology—that of the child mind—from a perusal of some sane and simple text on the subject and from a thorough, intimate, and thoughtful acquaintance with children of elementary-school age, while in natural action. Her knowledge of child-study should not be the vague and undemonstrated theories of the dreamer nor the undigested data of the experimenter, but should be the valid, valuable, and relevant results of child-study which have stood the test of practical experience. She is not to turn her room into a laboratory for the gathering of scientific data, because she has a more specific and practical duty which she owes to those particular children.

Closely associated with her knowledge of children should be a generous amount of sympathetic love for children. A cold scientific truth may serve as a guidepost to direct the way, but the warm hand of a sympathetic teacher placed within his own and the pleasant voice of hopeful love cheering him on his way are necessary to make the child's progress pleasant, persistent, and profitable. Most natures make the most rapid growth in an atmosphere of confidence, sympathy, and love. And yet love and sympathy must be wisely directed or they will permit a liberty which is license and leads to destruction. "Whom the Lord loveth he chasteneth." The teacher must love so wisely that she seeks in all her treatment of the child his ultimate worth to himself, to the world, and to God, and not his present personal pleasure.

Perhaps no greater injuries come to the child in the elementary school than those that arise from the inability of the teacher to see ethical and intellectual problems from the child's point of view. Many teachers filled with love for children, possessed of a high degree of moral integrity, and intellectually and professionally well trained, fail in their efforts with children because of inability to see such problems from the child's angle. It is valuable that the teacher shall know these things as adults know them. That makes a scholarly person, valuable to the adult world; but if in addition to this she does not know them and see them and feel them as does the child, she can be of but questionable value to the child world and has no place as an elementary teacher. She must know children's likes and dislikes, motives, ideals of right and wrong, fears, and prejudices, and a thousand and one other things that determine the subject-matter, methods of presentation, methods of testing, methods of control, correction, government, and discipline in the elementary school, if these things are to be administered in a way to conduce to the greatest good of the growing

child. And the best of this knowledge is empirical. If the family life does not supply this intimate practical knowledge of growing children, the school which prepares the teacher for her work should. The point of view, the capabilities and limitations, the laws of development, the apperceiving masses of children at different stages of growth during the elementary-school years cannot be mastered from books alone. Real live boys and girls must be had, and neither the sugar-coated specimens preserved in books of the Sunday-school type nor the mummified forms embalmed in books of the purely scientific type will suffice. Pope's statement that "The proper study of mankind is man" certainly applies with double force to the elementary teacher who desires to bear her responsibilities nobly.

She must know how to govern him, not by repressing those activities that may cause her temporary inconvenience, but by wisely directing them to useful ends. She must be an artist in the use of suggestion, always prompting by the influence of her presence, her acts, and her character, such action on his part as shall make for moral and mental growth.

No small part of the process of governing and character-building is the art of wisely doing nothing. It is a wise teacher who knows when to leave a child to himself undisturbed. Some teachers blind their pupils to a knowledge of right and wrong in the ethics of the schoolroom by constantly flashing in their eyes indiscriminate reproof and unremitting irritation. Some others, by a purposeless thrusting of irrelevant or inopportune questions or statements between the spokes of the wheels of the child's thought-cart, upset his load of well-collected ideas, and either leave him too tired and too discouraged to gather them up or else cause the entire class to mark time while he shall collect them. Such a teacher should pray for the grace of purposeful silence.

A qualification akin to this is the ability to suppress the purposeless chatter of children and at the same time promote free expression of what is worth while. Many children will go on like Tennyson's "Brook," and unless checked and directed will develop no power and turn no wheels.

The elementary teacher should know how to play with children and how to direct their play. To do this well she must know something of the psychology of play. She should know that play is developmental and educative, often more so than what sometimes passes for very efficient and valuable school work. She should know that the play of the elementary child is different from that of older children. It must be singularly spontaneous, free from rules and regulations, free from directions and restrictions imposed from without, and must be individual in its responsibilities. She must know how much of "every fellow for himself" and how little of "the gang" spirit there is in it. If the teacher joins in their play she must not fail to play with the spirit of the child and not of the adult. If she does not play with them, she should delight in their play. Pity the elementary-school pupil whose teacher has lost the play spirit. Someone has sagely said, "The great man is he who never loses his child heart."

She should know how to receive the results of a child's efforts in such a way as to promote his growth. Many a child has become discouraged and disconsolate through the carping criticism made by a thoughtless or dyspeptic teacher upon his best efforts, while many another has become self-satisfied and negligent by a flattering praise which deceived him into inactivity. To know how to criticize without discouraging and to praise without weakening is a valuable qualification.

Those who believe the teacher is born and not made may be willing to stop here in the enumeration of her qualifications, but some may be exacting enough to insist that she know something of the subject-matter to be taught. And so she should. The knowledge of this should be broad and general, particularly of those things in nature and the arts that will or should constitute the child's environment, The stupendous blunder which we have been making, however, is that she should know these things in the same way that the college professor and the high-school instructor know them. We fail to appreciate that a body of matter and a method of treatment which might be appropriate to the high-school or college student would be wholly unpsychological when applied to a child of elementary-school age. The former tends toward the technical, exact, quantitative, analytic, and abstract, while the latter should be more general, approximate, qualitative, synthetic, and concrete. If education is adjustment; if by far the largest part of our school children leave school before completing the elementary grades; if they are to go through life with such power of adjustment to environment as the elementary school can give in these few years, then our elementary-school teacher must know many things in the world of nature and the arts and in a vastly different way than she would need to know them in order to teach in the high school or college. We must remember that environment has psychological as well as geographical limitations. Proximity of a thing in time or space does not constitute it a part of our intellectual or spiritual environment. A mental or spiritual ability to detect its presence and determine somewhat its attributes is essential. Has the landscape beauty to the eye that has not sight? It is the purpose of elementary education to open the eyes and unstop the ears; not only to furnish the child the tools by the use of which he is to glean from books, but by means of things to establish the most numerous and the most vital and helpful points of contact between him and what is and is to be his environment.

The whole world of nature and the arts is the elementary teacher's field for selection of material and the entire range of forms of impression and expression is her method. From such an embarrassment of riches what shall she select? Time will permit us to give but meager suggestion.

In language she needs a strong and pleasing personality, for language is largely unconscious imitation of what is received throught he ear, and the child of elementary-school age is more susceptible to the language influence of the loved and respected teacher than he is in later years. The elementary teacher has less use for grammatical rules and definitions than for the habit of correct

and refined speech. She should be a good story-teller. Story-telling is an inviting form for the presentation of much material to the child, and a large part of the efficiency of the story is in the telling. A large knowledge of the history of English literature will not spoil our elementary teacher if she knows how not to use it. The history of literature is the husk and shell of which the literature itself is the kernel. Children have wisdom enough to like the kernel. She should know the choicest poems and stories for children, selected from all the ages, and should love them. From the multitude of classics in story and poem she should give the children what they love and what she loves. In her efforts to satisfy the hunger of the children for such nourishment, we will pardon her if she fails to read the "ten best selling books of fiction for the current year."

In art she should know well and appreciatingly a few pictures of real merit that successfully touch the child's life, and should be able to help the children to interpret and to love them. On the side of execution she should know the limitations that nature has placed on child life in its different stages as to its ability to execute detail and to perform a finished piece of work. She should remember that the child has eyes of faith and sees many things in his own crude drawing which her poor adult vision, rigid and exacting, cannot discover there.

In reading she needs little of the artifices of the pseudo-elocutionist. She should be able to read understandingly, impressively, and feelingly, with a well-modulated natural voice. She should have such a knowledge of literature that by skilful questioning and wise suggestion she can lead the children to extract from the selection all the nectar of knowledge and sentiment which it possesses for them. She should have a knowledge of some plan for mastering the mechanics of reading so the child may become independent, so far as the mechanical side of reading is concerned. She should know how to correlate the other studies with the reading that the child may come to each reading-lesson with such apperceiving masses as will enable him to interpret readily the thought-content of what he reads.

In arithmetic she should know accurately and thoroughly all parts that are necessary for conducting ordinary business. If she knows algebra and geometry as a background for a better view of arithmetic it will be an advantage. She should have some knowledge of what children of certain ages are able to learn advantageously. She should know the present point of view of our most modern arithmetics but should have an anchor of conservatism that shall save her from some of their faults. She should discriminate between the various classes of material in the arithmetic. She should have clear notions of what is essential and what is not essential and of where to place the various kinds of emphasis. She should have a store of sound devices for retaining interest in those exercises which for reasons of drill must be oft repeated.

She should know how to spell the words she and her pupils use. Whether she shall spell according to the "stand pat" or the "reform" standard is

perhaps debatable ground. Perhaps like the old-time pedagogue she should be able to do either, as he taught the earth round or flat according to the desires of his constituents. She should direct the child's effort toward a thoro knowledge of the spelling of his writing-vocabulary, and should not allow him to waste his efforts upon material for which he will have no future use.

She should be able to write a round, plain, legible style with a free movement, and should know how to conduct a writing-lesson that shall be a writing-lesson and not a drawing-lesson. Elementary penmanship is one of the worst-taught branches in the curriculum for so simple a one, and will continue to be so long as we worship the element of slant and fail to give proper recognition to movement. Drawing copies will not make writers. The way to become a writer is to write, placing the minimum emphasis upon theory and the maximum upon intelligent movement.

Perhaps in no subject (unless it be science) is the elementary teacher of today so far below what ought to be the minimum requirement as in the subject of history. If her knowledge is limited to what she has learned from an ordinary condensed history of the United States or of the world which she used in the eighth grade or in the high school it is practically useless to her in presenting history properly in the elementary grades. For her history is of dynasties, administrations, laws, constitutions, wars, rebellions, and subjugations, and these expressed in the most condensed and almost isolated generalizations. If such is to be the matter and method of history for children it is well that the misery and mischief of it all has been postponed to at least the late grammar grades. But children are able to get good from history in all the elementary grades if the proper material and the proper modes of presentation are used. Not all of us will agree as to the chronological and geographical sequence throughout the grades, but there are many things upon which we probably can agree that the elementary teacher should know, who is to teach history.

She should know that it must be concrete, dealing with phases of life which the pupil can interpret by a comparison with his own times and surroundings; that it must contain the personal hero or heroine; that it must be in detail, that is, the individual notion and not the general notion must prevail; that the relation of cause and effect should be present but that this relation should be between conditions which are within the child's comprehension; that children in the lower grades develop great power of weighing evidences and determining probable causes and effects when properly led and when given material appropriate to their capabilities; that all history for the lower grades must be narrative; that children are interested in real men and women and boys and girls and not in the apotheosized saints nor in soulless institutions, corporations, and civil organizations.

If she knows these things, she will fill herself full of a knowledge of life as it was in the various times and places with which she desires to acquaint her pupils, and using the arts of the story-telling teacher will lead them to drink

deep at the refreshing fountains of the past. She may use an ethnological beginning and sequence and commence with the tree-dwellers, or a semi-chronological one and begin with the Hebrews, or a geographical one and begin with the Mississippi Valley heroes. Which of these or other similar plans she shall adopt is not so vital as that she shall begin in some way, and shall recognize in her work the fundamental characteristics that should differentiate the teaching of elementary history from that of more advanced grades.

In geography she should know thoroughly the physical and political geography of her own locality, and should know how to use these as foundation material upon which to build the child's conception of those portions of the earth which are beyond the reach of his senses. She should know how to use the stereoscope, the picture, the story of travel, and the general library. She should know how to develop from details the general truths of geography treating the earth as the home of man. She should know how to make advantageous use of types as rallying-points for the pupil's knowledge. If she will faithfully prepare herself upon such material as this we shall not be particular if she has meanwhile forgotten some of the names that dot the map of Asia or of Africa.

Connected with her knowledge of geography should be her knowledge of natural science. It is in this field more perhaps than in any other that the methods of the high school and the college are most at variance with what the teacher has to do. What she most needs is a first-hand, commonplace, open-eyed knowledge of the animate and inanimate nature that surrounds her school on every hand. The microscope, scientific nomenclature, intensive study of minute parts and strange species have their place, but it is not in the elementary schools, at least so long as the children there are as blind as they now are to the artistic and economic values discoverable with the naked eye and describable in common speech, which are their constant companions.

Let us have a higher minimum requirement for the elementary teacher in these subjects that properly presented enrich the child's life for all time, and lower if need be the requirement in certain portions of some of the more ancient and honorable studies whose gray hairs are the sole reason for their presence being tolerated in the elementary schools.

You will readily discover that I have failed to enumerate specifically the exact and definite minimum qualifications of the elementary teacher. The reason I have failed is because I do not believe it can be done. The only points of view from which succinct and categorical answers can be given are those of financial equity and administrative necessity, and those I have furnished. The remainder of the paper is based upon two principal thoughts. First, that superintendents and boards of education should have clear ideals of what characteristics distinguish the good elementary teacher. Some of these I have briefly set forth, but not all. Any one of you could enumerate as many more. The second thought is that once having those ideals established the

minimum qualifications in your particular schools will be determined by your treasury. You will raise your minimum as high as you can and keep your schools supplied. You will get all you can for your money or you are not American.

If these things be true, we who believe that the best legacy left by one generation to the next is the children; that every year the school becomes a more important factor in the development of childhood; that now and for many years to come the great majority of our citizens will know no other schooling than that which they receive in the elementary schools; that each year the naturally endowed and properly prepared elementary teacher becomes a more potent factor in education—we who believe these things must wage a triple campaign: One for a better appreciation on the part of school officers and school patrons of the peculiar qualifications that make the efficient elementary teacher; another for more and better training-schools where those naturally fit may readily procure that particular type of professional preparation which best fits for elementary teaching; and a third for adequate financial resources that shall enable the state to attract to her elementary schools where all her future citizens are trained more of the strong and forceful, many of whom now find more fruitful returns in other honorable fields.

MINIMUM QUALIFICATIONS FOR THE TRAINING AND CERTIFICATION OF SECONDARY SCHOOL TEACHERS

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It is one of the lamentable things in the control of our public education that one large division of the system has had no widespread provision for insuring well-trained and properly certificated teachers. I refer to American secondary education. In almost every state in the Union, an ordinary elementary-school certificate will permit an individual, so far as the law goes, to teach in the secondary schools. Two marked exceptions, at least, California and Indiana, have evolved a high-school certificate and shown what can be done in the special standardizing of teaching in the public high school.

For this condition the public-school superintendent is to a considerable extent to blame. Usually a man promoted from the elementary-school service, he has followed his own interest and the larger problem in his care, and given his attention to the work of supervising elementary education. The high school of his city or district has, meanwhile, been left to the care of the high-school principal, or to what is a still more specialized control, to the university professors. In this way the one educational officer who should represent the people's total interest in all the schools, has been reduced in influence where the secondary school is concerned—reduced because he has, in a sense, given up his opportunities.

From some such conditions has arisen that peculiar and important controversy as to whether the high school shall "prepare for college" or "prepare for life." That it does, in practice, prepare largely or primarily for college is due to that neglect of the public-school superintendent who has allowed university-entrance examination, and university inspector, and the university-trained principal to dominate the secondary school. That the problem is now one of some importance in theoretic discussion is a sign that the superintendent and other representatives of the people have become critical with regard to the situation. Without underestimating the splendid, though one-sided, influence of the university on the high school, the supervision that needs most to be done now is that of the school superintendent, the official representative of all the interests that the people have vested in the school system. Among the many lines of work with which he can concern himself is that of the adequate training and certification of secondary-school instructors. That work he has successfully done for the elementary school, and it needs to be done for the secondary school.

"What shall be the minimum standard for training and certification of secondary teachers?" There, the problem is stated. This minimum is the one uniform standard toward which all localities should strive. It is a kind of final minimum toward which all states should progress, rather than the least requirement which varying conditions may dictate as expedient or possible now. However impossible such attainment may be to you now, in your own particular place, you need to have a goal of requirement with which to bring your local evolution into line with true and general movements of progress.

In stating minimum requirements for the secondary teachers I would say that they should fall into two divisions. On the one hand, there are academic requirements, standards of scholarship, which must be maintained. Knowledge of the subject-matter to be taught is a fundamental demand. On the other hand, there are professional requirements. The secondary-school instructor is not a mere man of culture with a command of the liberal arts; nor is he just a student with scholarly habits. He is a social worker performing one great function for society as its agent. His main material is a group of human beings, and his command of subject-matter is merely one of his instruments. The knowledge of the experience of the men and women of his own profession, predecessors or contemporaries, is a guidance in the care of his main responsibility that he should not be without.

How much academic training should the high-school teacher have? Certainly more than the students taught. Our best practice would seem to suggest a clear principle. The best normal schools for the training of elementary teachers require high-school graduation as a basis for professional work. The largest colleges ask that their teachers have had graduate work in the university proper, and usually the degree of Doctor of Philosophy, which represents three years of advanced academic work. If the teachers in the lower and the higher schools must pursue academic work beyond the institution in which

they expect to teach, why should not the teachers of the secondary schools be expected to do the same? College graduation should be the final minimum standard for academic training. This conclusion is concurred in by the report of the Committee on College Entrance Requirements, presented to the National Educational Association in 1889.

What and how much shall the professional training be? Or perhaps, to meet the conservative on his own ground, "Should there be any professional training at all?" I know what many sincere but inexperienced or insensitive men would say, both in the university and in the high school. There have been many bold enough to hazard the statement that there is nothing in professional training. Probably the best answer to these would be to lead them into a kindergarten where the gap in maturity between themselves and those taught is widest, and the misadjustment of the organized knowledge of adults greatest, and ask them to teach. Without teaching technique most of them would be hopeless. With a few, perchance, those methods of handling human beings, an unconscious part of their personalities would get along fairly well, but even then not for long. They would then become conscious of the thing we call professional method because the misadjustment is so obvious. The lesser misadjustments arising in the teaching of university and secondary students, persons nearer their own maturity, had not been so evident to them.

If misadjustments are very bad we notice them and do something about them. It is precisely for this reason that teaching method as an institution of high importance was born of the primary school and kindergarten, and extended its force upward into the higher school only by slow degrees. In general is is true that method (teaching method, not methods of research or investigation) move upward from the lower schools. Subject-matter, except that introduced primarily to better teaching method, has, generally speaking, come down from the top. You will find the greatest body of scholars at the top. But the best teachers in the world, the best adapters of knowledge to immaturity to be found in the world, are to be found in the primary school. What I have said applies mostly to teaching method, but the argument is equally good for administrative, disciplinary and other methods of the secondary school. The secondary teacher, if one knows the history of educational experience at all, needs some professional training.

If some professional training is needed, what shall it be? Educational training is not the easiest one in the world to estimate or determine. When we educate we do so for the whole of life. In places, the findings of exact science will guide us, but only here and there. Between the fragments of knowledge granted by pure science, is the field of general educational experience, as yet but vaguely interpreted. Again and again in education we must generalize from the history of our total experiences. The "history of education" we must have. It should deal with the history of secondary education in particular, more especially since the Renaissance. But it must not be too narrow. It must show the connections between life and the school at every

point, and between the middle schools and those above and below them. There is nothing so effective in breaking up the inflexibility, in the opinions of teachers, as to the finality of present traditions, as the history of education. It is the best instrument for the enlargement of openmindedness in the secondary teacher, who is in too many cases, with his humanistic or scientific bias, one of the most traditional of creatures in the acquisition of his educational valuations.

As a second professional subject, I plead for a neglected aspect. What the secondary-school teacher needs is an educational sociology. As the high-school teacher turns his eyes away from the university for his sanctions, his eyes must turn society-ward. The school is pre-eminently a social institution, and the teacher primarily a social worker. Only secondarily is the school psychological and pedagogical in its functions. We have in our past history been giving teachers tools to use and methods of applying them, but there has been given little real consciousness of social ends. If more high-school teachers were a trifle more social in their point of view, they would have no difficulty in seeing the difference between "preparing for college" and "preparing for life." The domestic arts as ministering to family life, and the political sciences as contributing to political life might then have for them a conceivably higher value than Latin and Greek. The social nature of the school itself as a grouping of human beings would be better understood. The "frat" and the "athletic" fevers might be understood as spontaneous bursts of social impulse, that could have been expressed in infinitely better forms if the high-school authorities had possessed some better notion of the social nature of a school. The evils of "frats" could have been gotten rid of by a little judicious and diplomatic substitution pleasing to all, rather than by the doubtful methods of legislatures and courts. A study of such facts of social life, as are directly pertinent to the school, is a basis that every teacher should have.

As a third subject, I mention an educational physiology, or a school hygiene, as you choose to call it. Its value is too obvious to require any explicit statements as to its worth.

As a fourth subject, one which lies back of all conscious teaching method, I suggest an educational psychology. Most of our progress in school proceedure in recent years has been a direct reflection of the increase in our knowledge of human nature due to the findings of psychology. The psychology of adolescence is particularly important for the high school.

As a fifth subject we have that organization of our best educational experience and our best scientific knowledge into a body of controlling principles, which we may term the principles of education. It is the correct application and reapplication of these which will make the detailed conduct of the school right. It is this body of general truths derived thru generalizations upon both our gross and refined experiences which will guide the teacher in new situations, saving him from the tyranny of mere device.

As a final theoretic subject, there should be courses in the special methods

of the subjects that the prospective teacher expects to teach. The special methods of teaching Latin, or chemistry, or domestic science, etc., form the most intimate and final approach of theoretic work to actual teaching. Every secondary teacher should have three or four such causes, representing his particular lines of specialization.

The last professional training demanded would be practice teaching. Theory must emerge in practice. It is theory's testing-ground. It is the place where the teacher faces the whole teaching situation for the first time, bringing his knowledge to bear in all sorts of relations and as necessity requires. The principle of practice teaching is well established in the training of elementary teachers. It needs to assert itself in the secondary field. If anything, raw teachers are more costly in the secondary schools than in the elementary school. Young children can disregard a teacher with less selfconsciousness and affront than older ones. Such work as is being done at Columbia University, the University of Missouri, and the University of California should be incorporated elsewhere.

The above factors in professional training prior to certification seem to express our needs. Just how they are to be pruned to our true limitations or arranged for most effective training is another problem. The state of California now asks a year of graduate work in the university beyond the bachelor's degree to allow of proper training. It is probable that with a year of graduate work this minimum standard at which we are finally to arrive may be attained. I commend it to the superintendents as their obligation to raise the standard of professional work. The people are always complaining of poor work and asking for better teachers. Give them what they want, or try to do so. Do not bother about economic matters. The raising of a standard will mean shortage of teachers, of course, but it will be temporary. Yours is a professional obligation. The economic obligation belongs to the people. Sooner or later, if you do not get frightened in the meanwhile and relent, they will meet it with an economic recompense that will be nearer your heightened standard.

GROWTH: HOW CONTINUED

WILBUR F. GORDY, SUPERINTENDENT OF SCHOOLS, SPRINGFIELD, MASS.

When the president of this body requested me to prepare a paper on the subject under discussion, I told him he could find others better qualified, by reason of longer experience and wider observation in the field of superintendence, to say something worth while on a question of such vital importance. I do not feel that I can bring to you from my own experience suggestions of much value; but it has been my purpose to gather from all parts of the country the views of superintendents, in cities large and small, as to the best means to be employed in stimulating the growth of teachers.

The American people have been exceedingly generous in the support of their public schools. They have spent lavishly upon material equipment, and in the rapid growth of their cities this equipment has entailed heavy burdens upon the tax-payers. The policy in general has been to construct excellent buildings with the best facilities for advancing the work. Moreover, much time and thought and expert knowledge have been devoted, in the past thirty or forty years, to the organization of school systems and to their wise administration.

But, in the meantime, the body of human knowledge typified in the course of instruction has been growing greater year by year. Every generation makes new discoveries and brings to light new truth which is the rightful inheritance of the next generation—a fact that society recognizes in a proper way by requiring the school to incorporate such truth in its curriculum. As is well known, this must be done in one of two ways—in the form of a new study, or by the addition of new facts and principles to an old study. In either case there must be a new adjustment, an adjustment that will inevitably result in adopting a different principle of selecting the topics and facts to be taught.

Moreover, far-reaching developments in modern pedagogy have shown that in any branch of knowledge a careful distinction should be made between scientific completeness and pedagogical fitness. If a teacher knows all the leading facts and principles of a given subject he may be said to know it in its logical completeness. But he may make a serious failure in teaching that subject by considering logical completeness at the expense of pedagogical fitness, and this mistake he will certainly make if he fails to select the facts with reference to the learner's ability to understand and assimilate them.

These things are clearly understood by school experts and need scarcely be said here, except as an introductory word to lay stress upon the fact that never before has there been so great a need of able, broad-minded, and cultured men and women to take charge of the educational interests of the people. Accurate scholarship, pedagogical insight, and rare skill in handling classes are requisite to successful teaching; but beyond this, a sympathetic imagination, an inspiring personality, a large capacity for friendship, and a keen appreciation of what is truest and best, are a few of the qualities that should characterize teachers in the public schools.

Elaborate material equipment, effective organization, superior administration, and a course of study based upon scientific principles, are all of great value, but the quality of the teaching is the pivotal fact in any school system. For equipment, organization, administration, and the course of study simply minister to the one great central purpose—the bringing of the individual teacher into intimate personal touch with the individual pupil—and, in common with all other instrumentalities, must be alike barren and futile unless the teacher has the vitalizing power to reveal and interpret to the pupil what the course of study represents.

Whether or not too much attention has been paid to material equipment, it is emphatically true that too little consideration has been given to vital equipment. The American people are eminently practical, and will one day realize that the thoroughly business-like policy for them to pursue is to make it worth while for the ablest men and women to join the teaching profession. The quality of our citizenship and of our institutions is involved in the quality of our education. Never before has there been so much expected, and never before has there been so much required, of the public schools. These things being true, the question of all questions is, How shall we secure teachers who rank well in scholarship, professional training, teaching power, and personal gifts? The merit system, enforced with fearless and impartial justice in making appointments constitutes a good beginning; but the problem is only half solved when the right sort of teachers are secured. It is one thing to get teachers of vital power who are capable of growth; it is quite another to provide effective means and influences to prevent them from being narrowed by the specialized work of the schoolroom.

For the best teacher is the growing teacher, one who keeps himself young by a continuous process of rejuvenation. Many teachers reach a pitiable state of mental stagnation long before they are thirty-five. Such persons go through a certain daily routine in the schoolroom in a thoroughly respectable fashion; they are faithful in meeting the requirements of the course of study along mechanical lines; their pupils are well drilled in the facts of the textbook, and pass without conditions the entrance examinations to the high school or to the college. But pupils with such training have not been vitalized, their lives have not been enriched, their hearts have not been touched, their personalities have not been strengthened, because the teacher did not have the power to breathe the breath of life into his teaching.

As I have already said, much depends upon the kind of teachers that begin the work, but quite as much depends upon stimulating their proper growth when they have come under the influence of school routine. For at the best any school system is an immense machine, and unless some special method is employed to vitalize the teacher he is likely, as the years pass by, to lose rapidly in teaching efficiency.

My first step in the preparation of this paper was to send out a questionnaire to one hundred cities. These included not only New York, Chicago, Boston, Cincinnati, Baltimore, and other large cities, but smaller cities, some of them having a population of 20,000 or even less. My purpose was to get a variety of experience and suggestion, so that I could know how superintendents, working under various conditions, were regarding this problem and how they were trying to solve it. Ninety of the hundred to whom the questionnaire was sent responded, and in most cases in definite and concrete statements. They showed their keen interest by the fulness with which they wrote, and a considerable percentage of them urged me to give them the result, in a tabulated form, of my investigations.

This was the questionnaire:

1. What method is adopted in your city for stimulating the growth of teachers, either along professional lines or along lines of general culture?

2. What suggestions are you willing to offer as to the best means of stimulating such growth?

As was to be expected, a large number of the answers referred to teachers' meetings, general and grade, and to principals' meetings, as effective means of reaching the teachers, especially in the discussion of schoolroom problems. It goes without saying that the value of such meetings depends, in a large measure, upon the stimulating and suggestive power and the professional and cultural breadth of the superintendent and his co-workers in supervision. For he is the director of a complicated normal-school system, in which the work of a highly professional character is daily carried on, every teacher being a student and every schoolroom a laboratory where educational principles are tested and applied. The director should regard as sacred the teacher's individuality, and while he should be definite in his suggestions as to the fundamental principles and central truths embodied in the course of study, he should encourage initiative and allow a large measure of personal freedom to every one of his co-workers in and out of the schoolroom. If he will consistently and wisely pursue such a policy he will foster that fine professional spirit and co-operative temper which are essential to the most effective teaching.

In answering my questionnaire, several superintendents of smaller cities spoke with enthusiasm of conventions, or grade-visiting days. A group of teachers—in some cities consisting of all the teachers in a single grade—and their principals, will witness the actual work of a fellow teacher, usually of their own grade, who has received two or three days' notice of the special subject or subjects to be taught. After observing the work all the morning, they will discuss it freely, sometimes spending an hour and sometimes an entire afternoon in such discussion.

In Springfield, we sometimes call together the teachers of one grade, to spend an afternoon in observing recitations conducted by several skilful teachers, all of whom will take up the same subject, and we have found such illustrative lessons very helpful and stimulating. In this way a few especially able teachers will materially strengthen the work of their grade throughout the entire city.

As is well known, much of the value of the average teachers' meeting is often wasted by holding it at the close of the school day when many of those present are so tired that they cannot give the best attention to what is said. In Rochester the school authorities avoid this mistake. They dismiss all the schools of a certain grade for a whole day, in order that the teachers may meet at a central place for specific instruction. As may readily be seen without discussion, this plan has much to commend it because it is so rich in possibilities. It furnishes an opportunity to concentrate attention upon given problems in such a way as to lead to large and telling results.

Some of the superintendents, in responding to the questions sent out, referred with approval to the work of teachers' clubs. One superintendent spoke of teachers' clubs by grades, in which some committees investigate matters of special interest to their grade, and others review certain books and make digests of magazine articles for the benefit of the club. One superintendent of a city of considerable size wrote to me in substance as follows: Classes are organized for professional study, and each of them meets once a week or once in two weeks. Such classes are very probably more stimulating than lectures. It has been my observation that teachers will go and listen to a course of lectures without doing much studying, but if a class is organized the teacher must work. Another well known superintendent said that for a number of years teachers have pursued in connection with their work a course of study along both professional and general culture lines, and that the culture work is emphasized. In connection with this culture work courses of lectures are given which are largely attended by citizens.

Several of the superintendents referred with much approval to the reading-circles organized in their cities, and pointed out various ways in which books are studied. In some cases principals study the books with the teachers of their schools, the work being supplemented by the superintendent. One or two superintendents said they review the books with the principals alone before the latter meet their teachers, and others review the work of the principals by going over it with the teachers after the principals have held their meetings.

I can bear witness to the value of a particular form of club work which, many years ago, came within the range of my own observation. Our club, consisting of some fifty teachers, spent three winters, under inspiring leadership, in the study of English literature. The first winter we spent upon Wordsworth, and the second and third upon Carlyle. It was an enriching experience, which broadened the life of every member of the class.

Clubs organized for reading and study make a strong appeal to that considerable body of teachers who wish to engage in some systematic work in professional or scholastic studies. Some cities meet such wishes by organizing classes for teachers in their evening schools; but Baltimore—and Baltimore is not alone in this movement—authorizes its superintendent, "when funds for the purpose are available, to furnish an instructor for any club of twenty teachers who desire instruction which will tend to increase their knowledge of the subject they are expected to teach, or to give them greater skill in teaching."

The most systematic and, as I believe, the most effective method of stimulating the growth of teachers, as reported from the various cities, is the promotional or professional examinations, with the distinct aim of increasing the teacher's salary as a reward of merit for increased teaching efficiency and for the enlarged breadth of view of the relation existing between the school and the life and work of the world. In reporting what is done by various cities, large and small, I shall name only those which have published their plan of work, inasmuch as I have not asked permission from the superintendents to

quote anything that they said in their personal letters to me in answer to my questionnaire.

The following statements came from superintendents in cities varying in population from 30,000 to 100,000:

"For teachers who study along professional lines or who carry one academic study or who do summer work in an approved summer school, credit is given so that they can reach the maximum salary in five years."

"To encourage those who do not have a first-grade certificate, a renewal of certificate s based upon certain pedagogical studies prescribed by the superintendent. This work not only counts for a renewal of certificate, but also applies toward securing a higher-grade certificate."

"Teachers are required to pursue some line of professional study during the entire school year. At monthly meetings the subject is discussed and reports made upon the same."

"For the past few years we have organized courses in the evening school which have taken up certain lines of work that would be of advantage to teachers, and the teachers in different grades have been required to take these courses. The class thus organized meets once a week during the winter. For instance, the primary grades one winter had geography, taking special methods with some outline work in geography; the grammar grades taking history. Two or three courses of lectures during the following winter will be arranged, one along lines of general culture, and the others more definitely professional."

"When once appointed, a certain amount of professional work prescribed by the superintendent is required each year as a condition for the renewal of a city certificate, which technically expires at the end of each year. This professional work may include the reading and study of some book or attendance upon a course of university-extension lectures, as was the case last year and this year. This is regarded as the mimimum amount of professional work. Two years ago each teacher was permitted to choose some branch of study upon which a report was given at the close of the year."

The most definite schemes of promotional or professional examinations which have come to me as a result of my investigations are those now carried on in Chicago,[1] Kansas City, Baltimore, Boston, Cincinnati, Saginaw and Springfield, Ohio. It will be observed that all these cities are large except Saginaw and Springfield, each of which has a population of less than 50,000. In outlining the scheme as planned by each of these cities, I shall take into account only the essential features.

In Chicago the promotional examinations, which have now been discontinued by vote of the school board, were given at the end of the sixth year of service. At that time if the teacher's mark for efficiency in the schoolroom was 80 or above, she was permitted to take a promotional examination, and on passing it to receive an increase in salary. These promotional examinations included: (1) an examination in a professional study--psychology, pedagogy, and history of education, and (2) an examination in one of a number of academic subjects. The mark which a teacher received was the average of those received in (1) an academic subject, (2) a professional paper, and (3) the efficiency of the school work. This system was begun in 1902. So many

[1] Since writing this statement I have learned, as noted below, that Chicago has given up the promotional examination.

teachers wished to take these courses that Chicago was obliged to adopt a normal-extension scheme, in accordance with which a group of teachers in any part of the city desiring to pursue a definite line of study was furnished by the school board with a room and a teacher without cost to the group. The enrollment in such classes in 1904–5 was about 3,000. It should be noted that not all of these teachers were studying for promotional examinations. The most popular classes were in the various branches taught by normal instructors who presented the studies from the standpoint of their pedagogical significance.

In Kansas City the first professional examination may be taken at the close of the fifth year of service, when there is an increase of salary if the examination is passed, and the second may be taken one year later. The first professional examination covers the following subjects: history of education, philosophy of education, school management, and English literature; and the second includes history of education, philosophy of education, school management, and history of western Europe. Any teacher, after passing the second examination, shall receive a salary of $800, and on teaching at that salary for one year shall receive a salary of $825 per year, if the superintendent so recommends. But none of these professional examinations are given to teachers who have not shown advancement in teaching and governing that is satisfactory to the supervision. Superintendent Greenwood reports a "remarkable awakening," and says that "mental activity is aroused which indicates a genuine revival of learning."

In Baltimore, the first promotional examination may be taken during the third year of service, and the second two years later, provided the teacher's schoolroom record is satisfactory. The first examination consists of an "impersonal written test in the correct and effective use and interpretation of English," and the second of a thesis upon some schoolroom problem. The teacher is expected to make, before an examining committee, an oral defense of the statements appearing in the thesis, and to offer an explanation of all the authorities quoted and cited by page references and in marginal notes. It will be noted that the second examination is distinctly professional. It does not necessarily demand originality, but it tends to develop it, and it also encourages a sympathetic study of children, individually and collectively, not only in their school life but in their outside environment.

In Boston, promotional examinations are based upon (1) success in school during the preceding year, (2) professional study, and (3) academic study in some one line. The rule of the Board is as follows:

> All teachers whose compensation is on a sliding scale with a fixed increase for each succeeding year of service must take the promotional examination next following the second anniversary of the date on which they began service.

The first examination may be taken before the end of the second year of service and the second at the end of the seventh year.

In Cincinnati, the advance in salary for special study of some kind is not given until the end of the tenth year of service. At that time the teacher is

receiving $800 per annum. According to the rule, "elementary-grade teachers who have taught one year or more at a salary of $800 shall be entitled to an increase of salary the following year, provided they present satisfactory evidence that they have done sufficient scholastic or professional work" while teaching in Cincinnati to entitle them to a total of eight credits. These credits are given for university courses and for club work of recognized character under the direction of a leader whom the superintendent approves. The clubs are conducted by the principals of the schools. To this scheme there are no examinations whatever attached.

In Saginaw, a course of professional study and reading must be taken before the teacher can receive the second-year salary. In either the second or third year the teacher is required to make a written report on some school problem—a report which may take the form of a study of a group of children. Every year thereafter, a course of reading must be taken by a teacher before there can be an increase in salary.

Springfield, Ohio, has just adopted a merit system, the principal feature of which, as I understand from a newspaper report, is that at the end of three years of satisfactory service, during which salaries rise at a fixed rate per annum, further increase in salary shall depend upon passing an examination in English and on some professional study.

It is to be noted that all of these schemes are alike in the double purpose of (1) making the basis of salary increase improved efficiency and not length of service, and (2) of stimulating teachers to continue professional and cultural study.

If there were time, it would be of interest to comment upon the difference in the character of the professional and cultural work called for; upon the number of years in each case, during which the salaries rise automatically as a result of increased experience, and at the end of which the special work must be done before any further increase of salary can be made; and upon the number of examinations given and the extent of the special work required in each city. Such comparisons would be fruitful in suggestion and can be easily made by anyone who may be inclined to do so.

But it will serve my present purpose to call attention to the fact that in most of the cities where these merit systems are in operation the teachers may take the examinations or not at their discretion. As a matter of fact, there is abundant evidence that many teachers continue both their professional and their cultural studies after they have reached the maximum salary. This is a highly important consideration, but it is exactly what we should expect. For a large proportion of American teachers have high aspirations and large ideals, and if they are offered suitable opportunities for growth they will cheerfully and eagerly seize them. Said Superintendent Greenwood, in answering my questionnaire, "Last year 89 of our grade teachers took some university work with a view of getting degrees. They were of the number that had taken both professional examinations, and a large class is carrying forward such work this

year. All this is the result of our professional examinations for the advancement of salaries." Superintendent Van Sickle wrote: "Many teachers under our system *who are not obliged to take examinations to secure advance in salary*, are just as anxious to avail themselves of professional and cultural courses as are those who have in view promotional examination. . . . . At present there are 247 teachers taking courses in English, between 40 and 50 taking courses in botany, and 1,237 have applied for courses offered in educational psychology."

This definitely organized movement to condition the advance in salary upon the value of the service rendered, and to measure such value not by length of service but by increased efficiency as determined partly by professional interest on the one hand and by specialized knowledge and general scholarship on the other, signifies much for the future of American public schools. For no matter how greatly we may criticize the details of the various schemes just outlined, each has a commendable purpose, and that purpose is to aid in putting sound scholarship and a fine teaching spirit into every schoolroom.

Such is the brief statement I have to make to this body as a result of my investigations into the means employed in various school systems throughout the country to stimulate the growth of teachers. If it is true, as has often been said, that the teacher makes the school, and if it is equally true, as I believe, that the superintendent and his co-workers in supervision have much to do with making the teacher, the transcendent value of our work in its bearing upon professional interest and scholastic attainment must be strikingly evident to all.

ROUND TABLES

A. ROUND TABLE OF STATE AND COUNTY SUPERINTENDENTS

TOPIC—THE COUNTRY SCHOOL AND ITS BETTERMENT

HOW TO IMPROVE RURAL SCHOOLS

KATHARINE L. CRAIG, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION; DENVER, COLORADO

The great and all-absorbing topic in the educational world today and one, I might say, which has been of vital importance for the last half-century, is, "How to improve the rural schools."

The typical school of half a century ago was the district school, rural in thought, rural in manners, with its rude benches, its battered seats, its wood stove, its austere teacher, and its iron discipline.

In many parts of our country the conditions which existed then exist now, but this is an exception rather than a rule.

The rural school no longer consists of the rude log hut or the one-room frame building but in nearly every locality it has been supplanted by well-constructed brick buildings, well lighted, well heated, and well ventilated. The rooms have all the modern equipments in seats, desks, books, charts, and maps necessary for the acquiring of knowledge. Even

the walls are no longer left bare to look down with a stony stare, but many of them have reproductions of famous paintings and statuary of exquisite mold.

Many of the defects of the old school have been remedied in our more modern educational system, and modern methods all elaborately wrought out and handed down for use; yet the question still remains, "How can we best improve the rural schools?"

We frequently hear the inquiries, "Are our rural schools doing all that they can do?" "Are they doing all that we have a right to expect them to do?" and "What are the most efficient means to increase their usefulness?"

These are healthful inquiries made at an opportune time and may be answered from different view points, according to locality, population, and financial conditions, for the problems which confront the rural schools are many sided, and the solutions bearing upon the educational process and upon their administrative questions of ways and means are greatly varied.

The problem is a great one also because it lies at the heart of our educational system, affecting it at its very center, and it is certain to affect the character of our citizenship as it is correctly or incorrectly solved.

The rural school may be considered the thermometer which marks the rise and fall of public opinion and public interest. It rises to the height, or drops to the level according to the conditions by which it is surrounded.

As superintendents we boast with pardonable pride of the best-conceived and best-executed school system in the world, and frequently we are heard to say that from the Atlantic coast to the Pacific shores, from the breezy Northwest to the southern states, the forward progress of education is such as to awaken the pride and admiration of the whole thinking universe, and in our loud acclaim we often forget the thousands of men, women, and children who throng our states, and who cannot read nor write. And when educational statistics bring them vividly to mind we simply look wise and deplore the condition of the rural schools; and while many of these schools may be weak and poor and miserable, they are not wholly responsible for their condition. Still the questions characterizing able results attained by system, organization, consolidation, and efficient superintendency are ever confronting us.

In this broad land of ours there are thousands of rural-school districts administered by local officials, many of whom have only a mimimum training for the duties which devolve upon them, and who cannot always justly manage school interests. This condition is inherent and insuperable in sparsely settled localities, for the average country district does not always contain three men or women adequately equipped for school administration. Therefore the only way by which a thoroughly efficient administration can be secured is to abolish the numerous local boards and elect a county board of directors of several members who are well able to control school affairs, and clothe them with all the powers of local directors, duly compensating them for their services. This would not necessarily necessitate the consolidation of the rural districts, neither would it necessitate the change of the present laws relating to the distribution of public-school funds, but it would eliminate petty quarrels, jealousies, and sometimes inefficient school management. The schools in Europe are controlled from a central power, and while this method of national control of schools would not be deemed advisable under our form of government, yet as a county measure it would surely and certainly prove a solid foundation upon which to build good schools.

The present means which we have of overcoming or correcting inefficient school administration is through the supervision of the county superintendent, who in a marked degree is responsible for the educational standard in every district in his county, since it is made his duty, by law, to exercise a careful supervision over the schools of his county and to aid the superintendent of public instruction in unifying the work basing it upon scientific principles of definite working-plans. These working-plans must have for their

foundation a definite course of study which is not subject to changes, according to fancied needs in this or that particular locality, but one that will meet the requirements in every district and one that will be adhered to with a faithfulness that will pass all understanding.

The foundation of all educational work in city or town, county or district, must be laid with the same precision, the same level and the same solidity if you would have it bear the weight of its own structure. The great argument which is being made in our present state of educational fermentation, and that which was instituted by Horace Mann, "Teach the child according to his environment," is today fatal doctrine. The country child knows his environment and seeks that which he has not. People move from rural districts into the city in order to educate their children, not so often because of the quality of the city school, but because of environment and the systematic work in the school. Much of the work in the rural school is necessarily done at haphazard. Plans are not thought out and carefully executed. Classification is poorly planned and causes great waste of energy and time. System must be the great remedy.

Another of the great hindrances to the improvement of the rural school lies in its isolation, and its inadequacy to furnish the teacher the stimulative influence which comes from social contact with superior minds in the research and study in the profession. There is a monotony in sparsely settled country localities that the average teacher cannot adapt to her well-being, and which is not conducive to contentment and long service. Teachers rarely ask for re-employment or for a second term in the isolated districts, and no school can grow to a marked degree with a continual change of supervision. Forceful and suc cessful teaching is the result of a well-defined system carried on from time to time with no intervening space nor disconnected links. Most of the teachers who teach in the rural schools are inexperienced, and as soon as they become proficient by reason of experience acquired, they are induced to seek better positions where larger salaries are offered and social conditions more inviting. The country school can ill afford to pay the higher salaries such as are given in towns and cities, and just so long as this condition exists, just so long will the country school be compelled to engage the new and inexperienced teacher from term to term. Throughout the West the question of salary soon will be no longer a mooted one, but it will be firmly fixed upon an increasing scale according to the increase of property value.

The argument frequently advanced that the small country school offers no educational features and no advancing interest to the boy or girl is a misguided one. The history of the world has been made by men reared in the country and schooled in country schools.

There is something in the contact with farm life and rural training which in many instances, has developed a farmer's son into a world of power. Possibly it is the many hours every day which are spent largely away from his fellows; possibly it is the quiet of the farm house during the long winter evenings, where study is the rule and sport of any kind the exception, which accentuates the situation and develops the individuality and mental growth. At any rate the effect is there, and it is written plainly in the lives of our great men and there is no question but that the highest type of manhood and womanhood has germinated in the class of a country-school teacher. I am free to say that I have an abiding faith in the rural schools. I have faith in their possibilities, and the question of equipment, salaries, and organizations is determined by the ever-present supervision.

RURAL SCHOOL SUPERVISION

J. W. OLSEN, SUPERINTENDENT OF PUBLIC INSTRUCTION, MINNESOTA

The country child is entitled to just as efficient supervision as is the city child. At present he is not getting it. State superintendents, and other educational authorities throughout the land, generally agree that school work in our cities is more closely and

more ably supervised than that in the country. Some states have practically no rural superintendence. In most places the unit of supervision is so large that the directing authority cannot give the teachers, pupils, and local school officers, the time and attention requisite for the best results.

Nearly all rural superintendents are paid much less in proportion to the number of pupils under their charge than city superintendents, and also much less in average annual salaries. Some states do not prescribe educational or professional qualifications for their country superintendents or like officers. Most states elect them amid the turmoil incident to general election campaigns. Even where educational qualifications are prescribed by law, the standard is usually too low. Neither written law nor public sentiment demands for our rural schools the scholarly professional oversight that is making possible the excellent work in our city schools. Without train dispatchers, a railroad manned by employees of the utmost intelligence and energy would be unable to run its trains. Teachers cannot attain the highest results without system, order, organization, and competent superintendence.

Outlying rural communities, with their isolated and conservative population, that does not and cannot come into frequent contact with the most helpful intellectual stimuli, are even more in need of trained, scholarly, inspiring, sympathetic superintendents, than are our cities with their aggregations of financial and intellectual wealth, with their skilled teachers, and with liberal, broad-guaged business men upon their boards of education. The country needs the active leadership of experts of scholarship, culture, tact, wisdom, energy, consecrated purpose, and business ability who keep pace with the most advanced educational thought, become fully acquainted with the needs of their district, and intelligently meet them; who, from the public platform and by personal influence, can arouse parents, pupils, officers, and teachers to a sense of the possibilities and responsibilities of educating for twentieth-century life. In order to secure such, it is necessary to pay them living wages, and all legitimate traveling and other expenses incurred in the performance of duty. In most of our states non-provision for the payment of such expenses places a premium upon inactivity. Not only the standard of wages but the standard of educational and professional qualifications must be raised.

Rural communities must offer, not only larger financial inducement, but some system of appointment or election that insures stability of tenure, promotion in the service, and such removal from politics as will permit the self-respecting educator of scholarly instincts to be elected without going into an unbecoming contest with wire-pulling opponents. In nearly all of the northern states, outside of New England, a candidate for the county superintendency must go thru ward caucuses, county conventions, and all the annoyance and expense of a general election, and under this system, he cannot look forward to promotion in his specialty. After three or four years' service, when his experience should make him really valuable, the people are apt to insist, "He has had it long enough," and "It ought to be passed around." A superintendent in a smaller town who establishes a reputation for efficiency may expect a call to a larger one with its greater responsibility and larger remuneration; not so, a county superintendent.

Our country schools, in which the majority must receive their education, have been left to shamefully underpaid supervision that has too often lacked scholarship, experience, culture, and intelligent interest. Nor is it surprising that the rural superintendency fails to attract and retain our best educators. If city superintendents were elected at ward primaries from resident candidates only, during party contests; if the salary were so inadequate as to be beggarly, and if the situation offered no prospect of promotion, our city schools today would not have at their head the best men of the country.

Why should not the present successful system of choosing city superintendents be adapted to the needs of rural schools? The appointment of county superintendents by state boards of education, or the appointment by state authority of county boards of

education, that in turn appoint rural school superintendents, is generally satisfactory where it is in operation; but it is not probable that legislatures in our northern states will look with favor upon a plan to remove the administration of their school affairs so far from the people themselves. Why should not educational boards for the county, or other logical unit of government, be created to select county superintendents and other supervising officers in the same way as city boards of education select city superintendents? Cities go into the open markets of the nation to secure the best superintendents that a reasonable amount of money will purchase, regardless of parties and politics, the accident of residence, or any considerations other than the best interests of the service. Affairs of educational administration should not be intrusted to county commissioners, county courts, or county boards, whose duties are general, and whose officers are not elected with special reference to their interest in the cause of education. Members of boards of education in our cities, I believe, represent higher types than are found, as a rule among ward aldermen. Members of county boards of education, or their equivalents, should be elected or appointed because of their high character, generous public spirit, and special interest in the development of childhood into the noblest maturity. May we not hope that, should this plan become general it will induce some of our strongest young men and women to place themselves in special training for this responsible service? Why should not the superintendent of a smaller county have the same opportunities for promotion as has the superintendent of a town or smaller city? Why should not every county in the country be in a position to compete with every other for the services of experts in rural school supervision, like our friends O. J. Kern and Cap E. Miller?

Not only would the plan under discussion be a better means for the selecting of rural superintendents, but it would, after their selection, tend to render their services of more value. Accountable only to a small board of men, chosen because of their interest in educational affairs, a county superintendent would naturally feel more independent in the discharge of his duties than were he the choice of a hundred or more politicians, each of whom believes, or tries to make him believe, that he owns the voters of his precinct. Not infrequently a county superintendent has been elected by a very small plurality, and it is severely testing frail human nature to expect of him the strength of character necessary to refuse a certificate to the incompetent daughter of a politician, who, it is known, controls a larger number of votes than composed that plurality at the last election.

And in matters relating to the condemnation of unsuitable schoolhouses, the formation of school districts, the selection of textbooks, may we not look for more honest and independent action when the tenure of office does not depend upon the good will of those who are seeking their petty self-interests and are unable to see either their own or the public's ultimate good?

Then, too, such a board, we might confidently anticipate, would prove a strong moral support to the county superintendent in his working out of far-sighted policies for the advancement of education, which necessitate the molding of public opinion in their behalf and freedom in their execution.

We can hardly expect the masses, who do not give special thought to problems of school administration, to demand a reform that is in many places apparently so great an innovation. Public sentiment, within and without our legislative halls, must be framed by you and me, who have been chosen to lead in those movements toward something distinctly better and more helpful for the boys and girls that will be enrolled in our rural schools on the morrow.

DISCUSSION

R. B. Cousins, superintendent of public instruction, Austin, Tex.—Not having had a copy of Superintendent Olsen's paper, it has not been possible for me to prepare a written discussion of it. I shall therefore content myself with reinforcing a few points of the excellent paper.

The paper maintains, and so far as I know no one dissents from the position, that every county of sufficient population—say one thousand scholastics—should have a county superintendent. Or, which is better, each township in the populous states should have a township superintendent. The superintendent should be a man of force, scholarship, character, and special fitness for his work. In this day of organization no other business enterprise of half the importance of a system of county schools would be undertaken without first establishing an official head. No city or town attempts to run its schools without a superintendent or supervising principal. The public mind with discouraging but certain progress is reaching the conclusion that county schools are not an exception to the rule that is universal, that every business of whatever nature must have a responsible head.

It is agreed that the salary of this officer should be such as to command capable men. The poor pay of the position has in most states been the largest obstacle in the way of efficient service. Recently, great progress has been made in this matter throughout the country.

There is some debate yet as to the manner of selecting the superintendent. It is maintained in some quarters that he should be elected by the direct vote of the people. This, in my judgment, is not the best way to select him, because it involves the expense of a campaign and not infrequently involves the schools in all manner of political broils. The office and the officer should be removed as far as possible from the evil effects and influences of partisan or personal politics, and should be put on a professional basis. It is maintained in other quarters that the county superintendent should be selected by the governor or by the state superintendent, or by a county board thus appointed. This removes the office too far from the people and inhibits the bond of mutual dependence and sympathy which should obtain between the people and the officer. He should be elected by a county board which is selected by direct vote of the people.

The importance of the office is the supreme importance. If reforms are to be inaugurated or general improvements are to be made in the country schools they will begin and end in the county superintendent's office, in so far as these reach any given county. He is the only man that can attack the problems of longer terms, better houses, better salaries, consolidation of schools, or indeed any other problem of general interest in the counties, free from the charge of ulterior and selfish motives. This office is not inferior in importance to any other office in the counties in possibilities for good to all the people. In due time this fact will be generally recognized.

C. J. Baxter, state superintendent of public instruction of New Jersey.—County superintendents should never be elected by popular vote. In New Jersey they are appointed by the State Board of Education. Each receives a salary of $2,000.00 per annum from the state and an allowance of $350.00 from the county for traveling expenses. Only those who have had extended experience in educational work and who hold state certificates are eligible to appointment. Each is required to formulate a county course of study that will receive the approval of the state superintendent. To make it practicable to carry out such course and complete our system of supervision, township supervising principals are appointed. The state appropriates $600 toward the salary of each supervising principal. To insure sanitary school accommodations all plans and specifications for school buildings must receive the approval of the state architect, before contracts for the construction of such buildings can be awarded.

COURSE OF STUDY FOR THE DISTRICT SCHOOL

M. BATES STEPHENS, STATE SUPERINTENDENT OF EDUCATION, ANNAPOLIS, MARYLAND

The correspondence which took place between Superintendent Miller and myself in regard to this part of the program was brief, but I have a distinct recollection that he

laid more emphasis on his decision that this paper should be *about* fifteen minutes than about a course of study for the district school. Deference shall be shown his good judgment by doing everything possible to keep within the limit. Beyond the boundaries of that splendid little state of West Virginia, one of Maryland's nearest neighbors and her most beloved sister state, it is as impossible to deal with this question comprehensively in fifteen minutes, as it is to put a gallon of water in a pint bottle. I am persuaded it was meant that this paper should do nothing more than make a few observations regarding the curriculum for the rural school, and nothing more will be attempted.

During the past decade, many of us believed we saw a solution of the rural-school problem through the plan of consolidation, and had hoped that its inauguration was the beginning of the end of the one-teacher school. As late as five years ago, I would not have yielded to anyone the privilege of seeing larger possibilities in consolidated or central schools, where all pupils could enjoy equal educational facilities, than I did. This vision of the new school was so full of glamor that the district school and its perplexing problems faded from the scene. Some apprehension is now felt lest what was taken to be a vision was, in reality, a nightmare.

There must be some reasons why school consolidation has not made the headway which its seeming merits would warrant, and when we look around we find some of them. A weak point in the scheme is that absence of a satisfactory plan to collect the various pupils in the wagon for transportation. We have not been able, in the efforts made in Maryland looking to the consolidation of two or more schools, to meet this objection in a satisfactory way. There is also a tremendous sentiment in every community in favor of retaining its schoolhouse as a center of community interest and life. For generations to come, at least in my state, there will be no general consolidation of schools. It will be in spots, and these spots will include but a small percentage of the district schools.

Nothing is intended to be said in this digression from the subject, tending to throw cold water on the honest efforts which are being made in the direction of school consolidation, or to minimize the immense advantages which come to pupils in such schools as compared with those of the one-teacher school; but I really feel there are also advantages to the pupil of the district school, which are to some extent lost when he enters a school where there is a different teacher for each grade. This can be made clearer if you will tell me why it is that in our cities a very large percentage of the leading business men, bankers, and lawyers were raised in the country and were educated in the rural school. What they seemed to miss in a division of instruction among several teachers, they appear to have more than made up in some other way. They have been more uniformly successful in business pursuits than the more educationally favored city individual. The type of manhood and womanhood developed in the country district and its school seems to be more independent than we find in any other environment.

Michael Angelo saw in the rough marble a beautiful figure incarcerated within its walls, which only needed his master mind and artistic touch to set free. He entered upon his work with a definite conception of what the finished product should be, and he did not entrust to another the task of transforming the shapeless mass into an expression of the conception which was in his mind. For the reason that the teacher is the most vital element in the school system and is the architect and builder of the child's mental and moral structure, is it not probable that the developing process is subject to fewer jars, and that consequently the product will be of a higher type where there are fewest changes in instructors? There is an advantage of greater importance than we are apt to suppose where the same teacher can follow and work with the child from the period of crude material until that pupil becomes an expression of what the school can do to prepare him for complete living.

This apparent digression has been made not to enter the domain of any other discussion but to give expression to an opinion that the district school still lives, and, from

present indications it would seem that the number will not be reduced to any great extent. We must continue to provide for their needs and to make them equal to the demands which the community may impose.

1. The course of study for the district school, where there is but one teacher, should be different from the one used in town or city schools. While the integrity of the grades should not be wholly destroyed, the grading should be flexible; and there must be combination, correlation, and alteration in order to reduce the recitation periods to a reasonable number. Close grading in the rural school has multiplied the recitation periods to such an extent that but a few minutes can be given to each. A little bite here and there, with no time to assimilate, has given ground for the charge that school work lacks thoroughness, and there is much force in the criticism. To be able to *think* quickly and accurately and to *act* honestly and courageously is one of the chief requirements made of American citizenship, and consequently is the principal demand in school work. A rural school program which provides for thirty or more recitation periods gives so little time for each lesson that nothing more can be done than to test the memory, and this tends to reduce the bulk of school work to a memory plane. The period for the recitation must be made longer and this cannot be done unless we provide fewer recitations.

2. What should be the extent and the content of a course of study for district schools? This question suggests a funny interview between the late President Lincoln and one of his callers at the White House. The stranger facetiously asked: "Mr. President, how long should a man's legs be?" Mr. Lincoln replied that he had given the matter but little consideration, but on slight reflection, he thought they ought to reach from the body to the ground. Any course of study must keep constantly in mind the pupil, who needs to know, on the one hand, and the world, which is his field of knowledge, on the other. The child must know the world in all its phases in order to have the fullest dominion and become lord of what he surveys. This earth is his home and he must become acquainted with its civilization that he may fit into its conditions with the least friction. We are told that there are five distinct phases of knowledge, viz.: (1) human thought; (2) mathematical relations; (3) natural phenomena; (4) human action, and (5) ethical and aesthetic qualities. Any course of study, whether limited or otherwise, must keep in mind these phases in order that our instruction may reach and develop each. We see how the coordinate grouping is made to correspond to these phases and how school subjects are classified under these five groups in such a way as will make the quickest and most effectual device for mastering the world's knowledge.

Dr. Payne, in his excellent book recently published, *Public Elementary-School Curricula*, makes this statement: "The school is fundamentally a social institution set up by society for its own protection, i. e., for the preservation of the best of its experience and ideals. It is, in short, the function of the school to adjust or relate the individuals of the social group to the social whole, of which they are parts. In this fact, we find the controlling standard in the selection of the subject matter in education. Briefly stated, this principle is that the needs of society should determine the selections of the subjects and topics of study in the elementary school. These needs are discovered by observing the activities of society. What the adult group is doing and thinking in life the child will in all likelihood have to do and think. Therefore, if society controls the school, it should mould the curriculum."

Formal studies and abstract work have enjoyed too much prominence in our instruction. The normal child must do something. He must not only have something to think about in the realm of abstraction, but he must have something to do in the sphere of the concrete. This explains why the percentage of time given to formal studies has greatly decreased and that given to content studies increased, proportionately, during the past decade.

If we define content studies as those which lead more directly to an insight into the

structure of society, we will find that the curricula of some of our European countries are given over to such studies to the extent of more than 65 per cent. Only during the past fifteen years has manual training been included in school instruction in the American schools. When we combine with manual training the related subjects of drawing and construction work, the schools of New York City devote to this more than 15 per cent. of the recitation time. Then there are other new subjects, among which must be included in any course of study for elementary schools, nature-study, elementary science, civics, and English. While these studies have been added, we seem to have lost no reverence for the formal studies, because none have been omitted.

3. In the American schools we are still giving about 60 per cent. of our time to what we may appropriately call the three R's; but the emphasis today, in our teaching, is upon the content or concrete, as distinguished from formal or abstract studies. I find there is much more said in the course of study and in educational meetings about the importance of the content studies than is done by the average teacher in the schoolroom. Not many school buildings are arranged so that instruction in this class of studies is easy. Professor Bailey of Cornell University is right when he insists that in every school building there should be at least two good-sized rooms—one for the formal study work, such as we now have, and another room, which should be a veritable workshop, for manual and industrial training, nature-study, drawing, construction work, and experimental science. If the school is to attach the pupil to the community and provide for the "sociological and psychological aspects of human life," it must surround itself with those adjuncts which are necessary to engraft such an education. The country school needs this content element of the course more than ever before. Very many of the occupations, where at least the beginnings of trades and vocations could be learned and some manual dexterity acquired, have faded from community life and have been absorbed by industrial combinations. Nothing has come to take their place; hence the school must provide for that instruction, which, in the good old days, was provided *out* of school. At a small additional cost the "workshop room" may be included in the school plant.

4. There should be such a combination, correlation, and alternation of subjects in the district school as will reduce the number of recitation periods to twenty. There are many helpful suggestions in Dr. Emerson E. White's three-group program published in his book on school management. The plan, in its entirety, deserves careful consideration, although some of the combinations seem inexpedient. The integrity of the grades may be somewhat better regarded, as there should be separate reading and spelling classes for each grade, to and including the fourth; and the arithmetic may also continue as a grade study. A little pamphlet, published for the consideration of the Maryland teachers, contains a program of recitations based on Mr. White's three-group plan, and should anyone here care to look over the details of that schedule, a copy may be found on Superintendent Miller's desk. It has not been made the course for our country school yet, but every teacher in our state is or should be examining it, so as to endorse or criticize it before the close of the present year.

The object in view is to provide a minimum sacrifice of the pupil's individuality and at the same time to preserve the sequence and co-ordination of school subjects to the end that all the activities may be more or less regarded.

5. If we are to accept the Herbartian idea of native interest and self-activity as the primary principle in education, we must not forget that this depends rather on the self-activity of the teacher. The country schools need the best elementary teachers and their salary ought to be the highest.

One mild criticism on the teacher. There has been very little study by teachers of educational theory, because they have been absorbed in practice work. As has been said, the course of study is a prescription for the child's needs. It was prescribed by our most learned doctors of pedagogy. It represents the accumulated experience of the best

teachers of all ages, and it comes to us as a sort of an abridged edition of the history and philosophy of education. But that history has no life nor its philosophy any meaning if we cannot hold it up to the mind's eye, see it in all its parts, and understand the reasons which led to its adoption. Rural-school teaching will make distinct gains when all teachers know what the course of study is and what it is meant to accomplish.

MANUAL TRAINING IN RURAL SCHOOLS

ARTHUR H. CHAMBERLAIN, DEAN AND PROFESSOR OF EDUCATION, THROOP POLYTECHNIC INSTITUTE, PASADENA, CAL.

There is a growing disposition of late, on the part of those in the city, to discuss the problems of the country school. There is a conviction abroad that the good things in education are to be found in the city, and that it is only fair and just that the country boy and girl be given a chance at the educational grab-bag and an opportunity to share in the mental wealth handed out from the urban schoolhouse. To one acquainted with the ups and downs, and the ins and outs of both country and city schools, a striking parallel to the belief just mentioned seems to be found in the foreign missionary field. We grow enthusiastic when we consider the work done for the glory of God by our own self-sacrificing, unselfish men and women in distant lands, and then, as we turn a corner of the street, we are shocked by coming face to face with a condition or circumstance of which there are thousands similar in every city. For a moment at least we are convinced that all our time, energy, money, intellect, and love are needed at home to assist in cleaning up our own back yards. The grass in the other fellow's pasture always appears greener and sweeter than that in our own.

Perhaps the advantages the country child enjoys make his school life fully as enviable as that of the city boy and girl. In any event there is sufficient need of improvement all along the line.

Our topic, "Manual Training in Rural Schools," might well be amplified to read, "How May the Rural School Be Made More Efficient?"; in other words, how may new life be injected into the schools of the rural communities, so as to induce the pupils to remain for a longer period; and not only to remain longer, but to have offered them work more real, less artificial than now, and that shall fit the students to cope successfully with the problems of the rural community, and create in them dispositions less dissatisfied with country ways and less willing to leave the seeming dead level of life on the farm for the fuss and feathers of city existence?

In the short time at my disposal I cannot presume to discuss, were such discussion necessary here, even a portion of the great questions and issues involved. The reasons for the introduction of manual training into rural schools, the kinds and forms of activity desirable, whether boys and girls should receive, each the same kind of instruction, the reasons such work is not more universally found to exist, the chief obstacles in the way of the introduction of the industrial processes, how to obtain teachers possessed of a knowledge of the subject and sufficiently skilled to carry the work successfully, how to create public sentiment and to raise public funds, whether the pupil or the school shall furnish the tools and materials necessary to the work, whether the trade or utilitarian idea upon the one hand or the so-called educational or formative phase upon the other shall be given place, these are suggestive of the matters to be considered in such a discussion as the one before us.

Some years ago I was free to join my voice with others in insisting that manual training was not demanded by the country child. His out-of-door life gave him the physical exercise so essential to his best development; plain, wholesome food and pure air and water contributed to his needs in this direction; the common household duties in which the girls had a part and the tasks upon the farm and the working with tools and machines under-

taken and shared by the boys—these, we insisted, gave to the country child that necessary training called manual in character, that came to the city boy or girl only through superficial means or was embodied in manual-training courses. The common argument as against this latter view, however, is that the work in rural communities, while healthful and of great value, is not directed, lacks in scientific treatment, accuracy, and unity; in short, is haphazard.

Again I found my views dovetailed with those of the multitude in insisting that what was "sauce for the goose was sauce for the gander." If a given line of industrial work met the needs of the boys, it would, perforce, prove just as beneficial for the girls. This argument, if legitimate, applies with equal force to the country and city child alike. We are now sure, however, that this philosophy was not even good theory. Each environment demands a treatment and interpretation distinctly different from that given elsewhere. Not only must differentiation begin early, boys to be treated as boys and girls as girls, but the problems of the country being widely diverse from those of the town, the work must be different even though the principles are the same. And finally, each boy being cut on his own bias, the needs, abilities, and desires of each are not to be ignored.

There is no doubt in my mind that each school in a rural community should offer instruction in industrial education, including domestic science, domestic art, and household economy for girls; agriculture and tool practice for boys, and an appreciation and understanding of applied design and of color and harmony in flower cultivation and garden making for all. But how can all this be done; where are the teachers who can instruct in the work; and do the rural communities desire such a plan?

After a thorough investigation of the conditions as they exist in rural California (and the locality, in this particular, is quite typical of that in any section of the country) the findings of a committee appointed for this purpose are most noteworthy and suggestive. It would appear that it is lack of favorable sentiment rather than scarcity of funds that has in most places deterred the introduction of such work. The rural folk, keen, analytic and practical, and ofttimes well read, fail to see in the results achieved in schools where manual training is given, satisfactory reasons for its introduction into the rural schools. Naturally enough, investigation by committee or school board is carried on in the town or city. Here they observe practices that are restricted and unreal. Most of the articles made have no apparent value or use. The work is shilly-shally and bric-a-brac. Too much fine, delicate construction, they find, with the main emphasis upon technique and finish and too little attention to strength and character of construction and to thought values. They can see no bridge between the industrial work done and the probable field of activity in the life of the future citizen. The reach, if there be one, is too great, and they say, "The game is not worth the candle;" the time and money could better be spent in other lines of work. Of course the view-point here may be cloudy as these people are looking upon work presumed to be adapted to the needs of the city boy. I am inclined to the belief, however, that there is reason for their dissatisfaction, and so long as the industrial training offered in the majority of city schools is of the present character, the rural communities will find it rather an argument against the introduction of courses in their schools.

There are scores of rural schools where industrial training in some of its phases would long ere this have been introduced, had sentiment been favorable. The financial side can, in most instances, be easily satisfied. The people must be convinced of the value of the instruction offered in industrial lines. Such instruction must appeal to them from the utilitarian side. While the trade school is not needed in this connection, nor is trade instruction demanded, the work should always be eminently practical, that is, useful. In the country, in industrial training, we should "never work contrary to trade practice," says one who has studied the question thoroughly. Whatever tool is used should be a tool the tradesman would use for a like purpose. Special or miniature tools should have no place. The method of procedure employed should also be that of the man of the

trade, while the material upon which the students work should be such as an expert would select in the world of activity. In other words, the boys and girls should, by reason of the industrial training carried on at school, have nothing to unlearn when they face the searchlight of actual living.

In a study of literature in the school only the best is chosen, that which in style, composition, force, and power to instruct and uplift is pre-eminently superior. That which in mature years will appeal to the individual as literature is studied as such in the school. So it should be with the industrial forms of work — its tools, its methods, its materials, its output. A process is not necessarily lacking in educational value simply because it possesses commercial worth and is made after the shop pattern or is given the handling of the craftsman. Depend upon it, those who work day by day at a given process or along a given industrial or technical line are, broadly speaking, using the most economic methods, the most desirable tools, the most satisfactory materials. To be sure the educational principle should be applied in the school, but always in the light of the practice of the tradesman.

There is, of course, another side to the question. A false standard is often placed by the parent of the country child. "I had to work for a living when I was a boy," is the popular cry; "I had no schooling, and I want my son to have better things and to enjoy the advantages of an education." Since most of those who have had to work for a living on the farm did not study Greek or Latin, the assumption is that to be educated one must be learned, and that such learning consists in an acquaintance with Greek and Latin. It should not be necessary to discuss the fallacy of such a view or to point the necessity for all boys, sons of rich and poor alike, being on speaking terms with the industrial world through the industrial processes.

The work of such men as Stetson, of Maine, Bayliss and Kern, of Illinois, Harvey, of Wisconsin, Miller, of Iowa, Hartranft, formerly of Washington, and Robertson, of Canada, and many others, has demonstrated beyond peradventure the value of industrial training in the rural school, and they have blazed some of the lines along which such training should be directed. Instead of cutting out a corner lot 300 x 200 feet at a convenient crossroads, planting the schoolhouse in the center, and artistically filling the space left with a green pump and fuel, and outhouses at the several corners, leaving scarcely sufficient room for a game of "anti-over" or "three old cat," two acres or three or five or eight should be had where land is cheap. This will give opportunity for experimental and practical agriculture, not of the play garden type. The growing of fruits and vegetables and flowers can also receive attention. This will necessitate the securing of the services of some boy who will care for the gardens through the summer months.

If the school has a basement it can be used as a shop. If thoroughly drained and cemented a kitchen may be located here. In new buildings provision should be made for additional room, and in districts where no space in the present house is available, a small addition may be constructed or a separate building erected, well lighted, and weatherproof. Such a building, if used for shop purposes, may be made with sides that can be raised, so that in fine weather the pupils will have all the advantages of working out of doors.

In dealing with this problem in the rural school it is not safe to attempt to *educate* the taxpayers to the value of making things that have no utility and such as possess no beauty, nor intrinsic worth. We must proceed rather from the standpoint of values as held by the community members. There are schools where the course of study in manual training is on such a scientific and pedagogic basis and so educational in its applications, that should a boy bring from home a hammer that he desires to rehandle, he will be allowed this mark of privilege only as he completes successfully a definite model or exercise in a prescribed series. The procedure should be directly reversed. The handling of an ax or hammer, the mending of a window sash, the rehanging of a door, the doweling of an umbrella handle, the glueing of a picture frame, the splicing of a plow beam or the mend-

ing of a box, the making of pieces of furniture such as tables, tabourettes, chairs, stools, benches, cupboards, cabinets, boxes, book cases—this is the type of work that should have first place, and prescribed courses of study should be brought forward only in emergency cases.

But where can competent teachers be found? One school board makes the bold statement that the less the man knows of the subject the better teacher he is, for under such conditions the boys do their own work. The expert is too prone to rob the boy of the benefits he should receive, by himself performing the difficult details, the excuse for so doing being that more ground is thus covered and a better showing made. Whether or not the argument of this school board is germane, in manual training as elsewhere in education, common-sense is the first essential. If the country school is taught by a woman, then is the problem of the instruction of boys complicated, for it is neither natural nor desirable that boys in seventh or eighth grades and above be taught the industrial processes at the hands of a woman.

The same objections advanced against the teaching of industrial training to boys in rural schools is likewise made as to the work suitable for girls. Many mothers have small favor for domestic economy in the school. This, they claim, can be learned at home. Here again popular sentiment must be aroused. While the processes must proceed along educational lines, the industrial spirit or commercial handling must be present. If the mothers are to be educated to the appreciation of certain economic and scientific points of view it must be by beginning with processes they understand, with methods they can appreciate, and with equipment and utensils with which they are familiar. If it be demonstrated to them that the tools they possess can be used to better advantage, they will not be long in acquiring new methods. Much can be taught at home but it is unnecessary to suggest here why industrial occupations, including sewing, cooking, and allied subjects, cannot be fully or adequately thus taught. Such economic and sociological questions are involved as seem to be a barrier to home teaching, although the value of home instruction is unquestioned.

Work for girls should include not only sewing and cooking in their narrow aspects, but a study of the chemistry of foods, simple analyses, marketing in its economic phases, heat, light, ventilation, house sanitation, plumbing, and disinfectants; proper methods of sweeping, dusting, laundry, and care of the home; hygiene, nursing, and emergency aid; a knowledge of accounts and business forms, domestic architecture and planning of the house and grounds; gardening and tree and floral culture and much more that in the Swiss schools is included under the term "female handwork," and which is both practical and cultural.

But work for girls must be considered from another than the sentimental point of view. The argument has been that since boys have manual training, we *must* consequently provide some work with which the girls may "occupy their time" during such periods. This argument is no argument at all.

The time has passed when any thinking man or woman will advocate the same kind or type of work for girls and boys alike. In the early years all may engage in like occupations, but differentiation should not be long delayed, and processes suitable to the aptitudes, desires, and actual needs of girls should be offered and required. In the ungraded rural schools the problem is a difficult one, as neither time, equipment, nor space may permit a great variety of work for girls of various ages and abilities.

Let me give an illustration of what can be done. A teacher in a country locality persuaded his board to purchase benches and tools for his older boys, and so much money was spent that I characterized the policy as extravagant. This teacher had only a pick-up knowledge of tool handling but understood boys, and as the older boys were leaving the school, he made his appeal on the basis of keeping them in school for a longer period. Note extracts from a recent letter. "I thought," he says, "you would be interested in the turn affairs have taken in our work here. I thought our equipment—tools, benches,

etc.—quite good enough for any one. Several of the boys decided they wanted better benches—they wanted to own the benches they worked on and the tools they worked with. Accordingly two have completed benches of their own and will soon buy tools. Two others are drawing plans for benches and will proceed at once to make them. They are putting on rapid-acting vises and tail screws. I became alarmed, fearing all were intending to turn themselves wholly to woodworking. But one boy assured me that he regarded it merely as 'an intelligent form of recreation,' and while he expects to study law says he will always have his bench and tools at home.

"One matter I wish to have you take up for consideration. I cannot teach sewing or anything of that kind. I am very anxious to formulate a course in manual training that is adapted to girls. I can use some work in wood carving, free hand and mechanical drawing, but I think there might be something in the way of constructive work. I have wondered whether there might not be a course where the materials used would be paper, cardboard, etc., combined with fabrics and trimmings. I think perhaps our present line of work a little heavy for the average girl, but feel that some work where the student actually creates something that answers a need, ministers to a want, or serves a useful purpose, is almost a necessity in the education of a child.

"I have been pleased if not flattered recently to note that several leading men in the East are advocating the very plan I am following, and poking fun at the idea of making models of nothing and joints just for the sake of joints. If you know of a course for the purpose I have suggested I shall be greatly obliged for information concerning it. I would be willing to go anywhere in the United States during the next summer vacation to equip myself for work of that kind."

This is the spirit that will win in this matter of industrial education. But in the rural school it must be considered rationally. It must not be deadened by being handled by a non-appreciative teacher who knows nothing of its content; it must not be in the hands of an enthusiast who rushes away to make tradesmen or seamstresses or professional cooks; it must be placed on a true commercial basis and considered from the standpoint of the practices of the craftsman. It must always be considered in the light of relative values and dictated in the terms of common sense.

THE CONSOLIDATED SCHOOL AND THE NEW AGRICULTURE

O. J. KERN, SUPERINTENDENT OF WINNEBAGO COUNTY SCHOOLS, ROCKFORD, ILL.

The time limitation of fifteen minutes for papers on the various phases of the betterment of the country school will not permit of any extended treatment. The country-school problem is the most important educational problem of the hour. The welfare of this most distinctively American institution affects more people, directly and indirectly, than the educational systems of the towns and cities. Certain it is that any one of the topics to be considered this afternoon by the various leaders could consume the entire afternoon with profit and interest. The subject then would not be exhausted.

THE NEW AGRICULTURE

There is a new agriculture. The higher institutions of learning for the farmer, viz.: the colleges of agriculture and the experiment stations, are developing a new science, the science of farming. Old methods must give way to new. The exhausted soil must be built up anew, if we are to have a permanent system of agriculture. The fertility of the best classes of soils must be maintained. So the soil survey maps with bulletins on rotation of crops; the chemistry and physics of soils; the breeding of plants; care of animals; farm mechanics and home economics, all emphasize the fact that we have a new agriculture and further emphasize the fact that the important work of the higher institutions of learning for the farmer must be made available for the great mass of country children who

will remain on the farm and will never go to the state college of agriculture or even to the nearby city high school. It is estimated that in many states 85 per cent. of the children now in the one-room country schools never pass beyond the boundaries of the home district, so far as school training is concerned. Surely here is an educational problem worthy of most careful consideration.

THE CONSOLIDATED SCHOOL

The union of several small country schools with a country high school with a course of study flavored with country life and interests seems to me to be the only far-reaching solution of the problem of agricultural education to fit the mass of people to meet the conditions of the new scientific age of agriculture. This does not mean that any of the evils of a city graded system, if there be any evils, shall be transplanted to the fields. Certain it is that the country child is entitled to as good an educational opportunity as is now enjoyed by the most favored city child attending the American public school. Certain it is, also, that the country people can have better schools by spending more money for education and spending it in a better way. There seems to be no other way.

A NEW EDUCATIONAL IDEAL

The hardest of all educational problems is to reach the average farmer and to lead him to do things to better the country school. The fact also that he is conservative and opposed to change does not remove the necessity for improvement. The fact that he does not believe in agricultural education does not render useless the work of the agricultural college and experiment station. The fact that on stated occasions he manifests great concern for the country schoolhouse, merely sentimental ofttimes, does not change the conditions there; does not plant a tree; paint a board; put a book into the school; increase the attendance; or add a dollar to the salary of a well-trained teacher for the dozen pupils enrolled in the school for six months of the year. How to create a new educational ideal among the farmers is not the question under discussion. I yield to no one in my belief in the country school and give full credit to most excellent work being done in many schools. A general campaign of education needs to be carried on for several years to remove misunderstanding and prejudice with reference to the consolidation of country schools. The farmer will have to be met on his own ground.

SPIRITUALIZATION OF AGRICULTURE

This is the first distinct service the consolidated school will do for agriculture. The right kind of training in this school with its high-school course will furnish a new type of farmer. He will have a wider outlook. He will be in sympathy with all that is richest and best in country life. Civic improvement will appeal to him. The study of nature in his high-school course will increase his respect for flowers, trees, etc., and lead to the adornment of country home and roadside. His social interests will be enlarged. The association with most of the boys of a township while in school cannot fail to make men more sympathetic and social. The organizations of boys while in school will naturally lead to the organization of men out of school. The isolation of the farm home will pass away. The influences of art, music, literature, and the science of agriculture will mitigate the drudgery of farming. "The man behind the plow" or "the man behind the cow" becomes a new man. And with this new man comes a new spirit to his work.

VITALIZATION OF THE COURSE OF STUDY

The consolidated school will make possible a course of study suited to the needs of country life. There will come a study of the environment of the child and in this environment will be found educational material of the highest practical utility and cultural value as well. Dean Bailey, of Cornell, has said "there is as much culture in the study of beet roots as in the study of Greek roots." The course of study for the country child will not be patterned after that of the city school, where different conditions obtain. The

possibility of secondary education out in the fields makes the high school accessible to all the children. The high-school course of study will include soil physics, agricultural chemistry, agricultural botany, farm mechanics, and home economics. The child will be put in touch with life. As Superintendent N. D. Gilbert, of the Northern Illinois Normal School, says, "From all that has been said, it is evident that social efficiency demands that the course of study in all its detailed outworking should be made a "local issue;" that it should utilize the local community life—its occupations, resources, organization, traditions, customs. The school should be consciously in touch with all. Today the serious charge against it is its isolation as a realm of child life and its failure to articulate closely and smoothly with the home, the neighborhood, and the community at large. Only so can the realities of the larger life come to the child: only so can the instruction of the school take on the reality needed to make it vigorously and practically effective."

EFFICIENCY OF THE TEACHING FORCE

Lastly for the purposes of this discussion the consolidated school will increase the efficiency of the teaching done. This kind of a school will demand and secure better trained teachers who will be able to vitalize the course of study. There will be a longer school year, with better salaries, with longer tenure of office on the part of the teaching force. The superior character of the instruction will bring the country school and the country home closer together to meet the conditions of a new country life. Such trained teachers will make the consolidated school the connecting link between the farm and the college of agriculture. How to make the country people realize this is another question.

DISCUSSION

E. E. Balcomb, Department of Agriculture, State Normal School, Weatherford, Okla.—I fully agree with all that Superintendent Kern has said. We need to be impressed with this statement that the country-school system affects more people directly and indirectly than the educational systems of towns and cities. The course of study is less adapted to the needs of these children than to city children. Conditions are such that they have the poorest instruction. Making agriculture the basic study and correlating other subjects with it will remedy the one evil. The consolidated school will remedy the other by giving better buildings, equipment, and instruction.

In the brief period for this discussion I can say nothing of the consolidated school except that I most heartily endorse the movement. The point Superintendent Kern makes concerning the advantages that the consolidation of schools will give in encouraging organization among farmers learned from organized school associations is excellent.

We need more time for the discussion of this subject. What opposition there is to this movement comes from misunderstandings of what is expected in agricultural instruction.

Mr. Bishop is preparing a most excellent program for the department of agricultural education at the N. E. A. and I hope that we may have a full meeting.

Mr. Kern speaks of the difficulty of interesting the farmers themselves. He has already done much to interest the farmer. Superintendent McBrien and Mr. Bishop of Nebraska are reaching them successfully through the boys' and girls' clubs. In Oklahoma we are carrying on a campaign in connection with farmers' institutes. This work could be made more effective by interesting the leaders of the farmers' unions, the granges, etc. We ought to have these leaders in conference at our national and state associations, and should secure their co-operation in reaching the farmers.

As Superintendent Kern says, "what we need is a general campaign of educational needs to be carried on for several years." We should need to have a national organization of educators and farmer leaders to forward this movement. They should issue a bulletin. This organization should carry on experiments to prove the value of this work. What

we need is reliable data gathered from all over the United States, as far as possible, under all conditions, as to whether the present or any suggested course of study and methods of teaching are the best possible for the development of the American citizen.

What would be the procedure in the laboratory if there were a hundred different methods of preparing a certain chemical compound? Conditions would be made as nearly uniform as possible and a thousand different trials would be undertaken by each process. Then everyone would be satisfied that the one producing the best results would be the one to be employed. What would be thought if the chemists called convention after convention, and each chemist gave his opinion and his experience? We would say "a good way to begin, but an extremely sorry way to end. Why did they not put an unbiased man in each of a hundred laboratories and then face the facts?" We have been long in the condition of experience meetings in educational matters, and now we should lay the foundation for producing facts.

The U. S. Department of Agriculture no longer confines its efforts to issuing bulletins, however valuable they may have been. They were all that could have been done in centuries dead and gone, but now they send out men to all parts of the United States to conduct model farms among the farmers; they have railway trains to carry practical demonstrations to the very doors of the farmers. Why should we hesitate?

The past fifty years of the N. E. A. has been crowded full of good things, useful things, necessary things. Educators were brought together, papers read, discussions carried on, learned men consulted about the best way of doing things, each brought of the richness of his home experience and all went away benefited.

But for the fifty years of the N. E. A., in the dawn of the twentieth century, all are from Missouri: "they must be shown." Things must be demonstrated. The people must see. Talk is cheap. The man who has done something is extolled far above the one who has simply talked about something.

Let the N. E. A. arrange for collecting experimental data concerning groups of children in various parts of the United States and under all conditions of life to pursue different courses of study through schools, following their after school life long enough to determine which course of study had best prepared them for citizenship. The United States commissioner of education and the United States Department of Agriculture would, without doubt, be glad to co-operate. The consolidated schools would furnish the best of laboratories.

I urge that a resolution be passed by this section requesting the N. E. A. to inaugurate such a movement and asking President Miller of this meeting to appoint a committee to investigate the expense of such a movement and to communicate with the departments at Washington as to their attitude in this matter. This could be a part of the work of the national organization, the Society of Agricultural Education before suggested.

Cap E. Miller, county superintendent of schools, Sigourney, Iowa.—Some people think that boys and girls are naturally lazy. I don't think so. To me they are busy bodies, running over with an abundance of energy. They want to be doing things with their hands, as well as their minds. They like to experiment, and if teachers can connect this experimental tendency with school work good results will follow. No branch of study offers a better opportunity than that of elementary agriculture. You may be interested in a few experiments that have come under my observation. One is an experiment in cross-fertilization. A boy planted a hill of yellow field corn and surrounded it with a number of hills of sweet corn. At the proper season of the year he cut off the tassel of the field-corn stalk, so that the only kind of pollen that it could get was that from sweet corn. And here is the ear of corn that resulted from that experiment. The boy brought the ear of corn to me and told me about his experiment. When he had finished I called him by name and asked him what the experiment had taught him. This is what he told me: "It taught me that cross-fertilization is a real fact, that it takes place out of doors.

The pollen said, 'I'll decide what the color of the cobb shall be and I'll decide what the color and characteristics of the grain shall be.' But that old corn stalk said, 'I'll decide what the size of the ear as a whole shall be.'" The boy reversed the experiment and had the same story to tell concerning it. The best thing about the experiment was that all the boys and girls in that country learned all about it. And this is only one of hundreds of experiments that these boys and girls have performed.

The study of plant life offers boys and girls a great help in composition work. Ask a boy or girl to write about life, success, or character, and he doesn't know where to begin or end. He searches through the encyclopaedia, the dictionary, and all kinds of books to find something on the subject. But if a child is asked to write about a plant, the seed of which he has put into the ground—a plant for which he has cared—a plant that he has studied for a whole year—then he was something concerning which he knows and concerning which it is a pleasure to write. There is a natural and logical order in the growth of the plant that furnishes the child a foundation for composition work, and when he forms a habit of using this logical order it will stay with him for life and help to influence his whole life, even if he becomes a minister, lawyer, or farmer. You will understand the point I am trying to make more clearly if I give you a composition written by a little country girl, not more than ten years of age and who had never seen the inside of a high school. Her teacher had heard several talks on the teaching of elementary agriculture and had read a large number of pamphlets sent out by the Iowa Agricultural College and by the U. S. Department of Agriculture.

AN INTERESTING PLANT

In this great wide wonderful world of ours there are many kinds of flowers. Some are not so pretty as others, but each has its mission to fill.

To me one of the most beautiful and interesting plants is the aster, so called from the close resemblance of its expanding leaves to a star. It is a native of America and Eurasia.

Last spring we tried to improve our school surroundings, and so we made flower beds and planted seeds and as these flowers grew we carefully studied them.

I chose the aster because it has flowers of many rich colors and is a late-flowering plant, blooming throughout the fall.

One morning in June, when it looked like rain, I, together with some of my schoolmates, spaded up a circle ten feet in circumference; then filled it with rich, black soil, carried from the roadside, and around it we placed green sod.

Shortly afterward some aster plants were given me and I planted them in the bed eight inches apart.

The plants were about an inch in height and had three or four small leaves. At first they had but one large and two or three small roots, but soon other little roots kept growing out from the large one, until there were about twenty or more, each made up of little cells held closely together.

The roots kept growing into the rich, moist, warm earth and the little cells took up the rich juices, and then the moisture and food was pushed up into the stems, which are the tubes that carry the food and moisture to the different parts of the plant.

The little cells could not take up the mineral food the plants required just as they are found in the earth, but when the rain came down and sank into the earth a kind of sirup was made and furnished food for the plant.

When the little cells had taken up all the minerals they would hold the leaves threw off the water that was left and gave it to the sun.

As I lived just across the road from the schoolhouse I was able to give the asters proper care during vacation and almost every evening after sunset I watered them. I was also careful to keep the weeds out of the bed, so they would not absorb the moisture the plants required.

And when school began in the fall the asters were beautiful full grown plants one foot in height and at this time very beautiful and commanding and covered with white, pink, purple, and scarlet blossoms.

There they grew and blossomed through the long bright summer and autumn hours, casting sweet perfume on the air, nodding in the breeze and cheering the passers-by.

And above all together with other flowers, our school yard was prettier and more attractive than ever before.

Please remember that this little composition is only one out of hundreds and thousands of similar compositions that were written by the boys and girls in one county.

It may be an unusual thing to hear boys and girls give from memory compositions that have been written on such subjects as wheat, corn, fern, potato, tomato, sweet-pea, aster, peanut, watermelon, bean, rose, pumpkin, or cabbage, but no one who has ever listened to such a program will question the good that comes from it. If this idea could be incorporated into some of our commencement programs, the people would be better satisfied than they are sometimes and the boys and girls would gain some information that would be valuable to them all their lives, no matter what their life-work happened to be. I can never forget some of my experience with such programs. I remember one program in particular when a number of boys and girls were on the platform. They had done their best and they had done well. Mr. Joe Trigg was present. Mr. Trigg was known all over Iowa and even throughout the nation as a writer on agricultural topics. His paragraphs in the newspapers became so famous that they were nicknamed "Joe Triggers." While the judges were deciding which pupil had made the best effort the boys and girls asked Mr. Trigg to talk to them. Mr. Trigg was a man who had always taken a great interest in school work and in boys and girls. He knew what a good school was. He knew what good school work was. He was a man of many years' experience and his hair was white with age. What he said on that occasion ought to have some weight. I will remember it all my life. Here it is: "Whenever the time comes that a little girl, nine years of age, curls hanging down on either side, coming from a rural school district, can get up on a high platform like this and grow eloquent as she tells of the life of a simple cabbage plant that she has studied and cared for through the long summer, something valuable has been added to our school system." That was the introductory part of his talk.

Each year it has been a part of my work and a pleasant task to send some kind of seeds to the school boys and girls. Hundreds of letters have come to me and many of them have had the characteristics of the following one:

North English, Iowa, Oct. 28, 1905

Dear Sir: I would like for you to tell me what I am to do with my corn. How much I am to send to you and how to send it. I have seven bushel from 1,170 grains and my sister has three bushel from 350 grains. [Here is a chance for the teacher to find some problems in arithmetic that will be better than most of the problems that are found in the textbooks. Many problems can be framed from the efforts of these two girls in their study of plants.] The wind blew my corn down and it was not as good as it might have been if it had stood up straight. Yours truly,

Minnie Jones

Care of N. S. Jones, North English, Iowa

Let me take a few sentences from a compostition that was written by a little girl on the subject of peanuts. These are her words: "My peanut bed was so small that the weeds were easily kept out by the use of *my hands*. I counted on one vine ninety-seven peanuts. I planted about a pint of peanuts and raised a gallon, and selected peanuts for study because I had planted them and observed them carefully." It is an inspiration to listen to such compositions. Sometimes our boys and girls read them in the class recitation and often they commit them to memory and give them as a part of some school program. Their teachers always require that they bring with them to the class recitation or to the platform the product that goes with their composition. And as this little girl held the peanut bush and many of the nuts in her hands, she went on to explain to us things of this kind, "On every branch there are just four leaves—never fewer. The flower is shaped something like a yellow violet."

THE VALUE OF EDUCATIONAL CAMPAIGNS

J. L. McBrien, state superintendent of public instruction, Lincoln, Nebr.

The value of educational campaigns must be measured by the importance of the questions at issue and the ability and integrity of those who take part in their discussion

and promotion. Once in four years our great quadrennial election comes off, and during the campaign pandemonium reigns from the Atlantic to the Pacific and from the Lakes to the Gulf. Some say these wild excitements are not wholesome. In my opinion they are the best things that can happen to the country. The best speeches of the ablest statesmen of all political parties scattered through the land by the press in pamphlets, heard on the platform, and in debate, discussing the tariff, finance, taxes, immigration, child labor, ship subsidy, regulation of railroad rates, pure-food laws, imperialism, the Isthmian Canal, and our foreign policy, are the education of the common people, and they learn more in a year of universal debate than they would in twenty years of reading and thinking without such help.

I do not mean to say that educational campaigns must partake of the noisy turbulence which marks political campaigns in order to be valuable. But every educational campaign must have an issue before any value can come from it. That issue may concern but a single school district, and yet to the people of that district be a question of greater importance than any of the problems in the domain of national politics. Suppose it is the voting of bonds for the erection of a new school building in a district of not over 3,000 population. You often see such a district shaken from center to circumference in the boisterous storm of public discussion. The value of such a campaign must be judged by the ultimate success of those in favor of progress.

There are many questions any one of which is of sufficient importance to justify an educational campaign under the direction of county and state superintendents in their respective fields. Take the question of free textbooks for a state. This is a question of great importance to every county superintendent and the state superintendent where a campaign is to be made for such a law. If such a campaign is to result in good to the commonwealth, its advocates must be able to show its advantages if enacted into law. Briefly stated, these advantages are: It is a logical sequence to the free-school idea, diminishing still further the barrier between the rich and the poor, removing an obstacle which stands in the way of attendance of the very class the common schools were chiefly designed to reach; it reduces largely the cost of books to the community as a whole; it enables the management of the schools to secure more satisfactory and modern books and materials; when properly administered it promotes the free use of books which are needed for study at home, and helps the teacher to inculcate habits of neatness and care in the use of books. The chief objections to the system come from two sources: First, from those who oppose all taxation for school purposes; second, from places where carelessness in the administration of the law has resulted in unnecessary destruction of books and in careless habits on the part of pupils. It is safe to say that wherever proper attention has been paid to the administration of the law the results have been highly gratifying to school authorities, teachers, and patrons. It is furthermore safe to assume that having once come to understand the advantages of this logical extension of the free-school idea, the people of no state will ever willingly go back to the system of individual purchase and ownership with all its perplexing problems in gradation and classification, and the absolute inability of thousands of the children of the poor properly to supply themselves with books.

In Nebraska we have had a free textbook law since 1891. We do not believe in state uniformity, state ownership, or state publication of textbooks. Neither are we in favor of county uniformity, where a small committee selects the textbooks for a county. Such selection too often smacks of graft. The Nebraska law makes district ownership and uniformity mandatory. Before any publisher of school textbooks is permitted to enter into contract with any school district he must file with the state superintendent of public instruction, to be approved by him, a good and sufficient bond in the sum of from $2,000 to $20,000 for the faithful performance of the conditions of the contract; and such publisher must also file with the state superintendent a sworn statement of the lowest prices for which his series of textbooks are sold anywhere in the United States under similar conditions. So much for those who contemplate an educational campaign for such a law.

In those states having such a law it is incumbent upon county superintendents and the state superintendent to make a campaign for the care of school property with special reference to textbooks. Experience proves that where proper care is exercised by the school board and teachers the free textbook law is popular and satisfactory; but it becomes a detriment and a nuisance wherever pupils carelessly soil, mark, deface, or destroy books. See that teachers appeal to the pride of their pupils; that they insist on habits of neatness and cleanliness; that they make a regular inspection of books, at least once a month. No other agency is more effective than a regular book inspection. In every session of the legislature since the passage of our free textbook law, an effort has been made by lobbyists to repeal the free textbook law and enact in lieu thereof a law providing for state uniformity, state publication, and state ownership, under such nefarious plans as to bankrupt the state with reckless expenditure and graft. Be it said to the credit of every Nebraska legislature that all such cunning schemes have been promptly and emphatically exposed and denounced and rejected. At the last session of our state teachers' association a committee on school legislation was appointed, one from each congressional district and three at large, to represent the school people before the legislature on matters of school legislation. This committee at a recent meeting unanimously passed the following resolution: That it be the sense of this committee that Nebraska has the best free textbook law in the United States and that we are unalterably and unqualifiedly opposed to any amendment thereto.

There should be an educational campaign waged by every county and state superintendent in the United States for at least a five-dollar library in every rural school. The value of such a campaign can be measured only by the value of the books which it will place in the hands of the rural pupils. Their value cannot be estimated. To inspire in pupils a love for good books is to fill them with a desire to frequent the company of their betters. They learn to note what great men and great women admired. They learn to admire and worship rightly, and thus are proper ideals placed before them.

Several states now have excellent library laws. There is a measure now pending before the Nebraska legislature which has passed the house and has been recommended for passage by the senate committee on education. This bill makes it mandatory upon every school district—except in districts appropriating at least $300 per year for the maintenance of a public library—to set aside annually from the general funds of the district the sum of ten cents per pupil for the purchase of books for the school library. The author of this measure, Hon. Trenmore Cone, is also the author of Library Day, observed on the Friday nearest October 21. The observance of this day was inaugurated by the Nebraska state teachers' association on a resolution introduced by Mr. Cone in the year of the Columbian Exposition. This day is now celebrated in many states of the Union and will no doubt, like Arbor Day of Nebraska origin, be celebrated in a short time in every state in the Union.

In a campaign for free textbooks and school libraries let us not forget to caution every school district board and every teacher against purchasing any books whatsoever from traveling agents. Many school districts in Nebraska have been imposed upon by chart sharks and fake agents. A traveling agent cannot pay his railroad fare, hotel bills and livery hire, allowing him nothing for his salary, and visit rural schools at an average cost of less than five to ten dollars per district. Then such agents are usually paid two prices, and oftentimes four prices, for their books, which are, as a rule, not suited to the average rural school. The actual expenses and profit of the traveling agent would secure for any district a good library by dealing direct with reputable publishing houses. These companies are ready and anxious to furnish state and county superintendents with price lists of their books, carefully graded. Books will be sent in a single parcel, transportation prepaid, by publishers to any teacher or school officer in any state on receipt of the money for the books offered. County superintendents should furnish their teachers with price lists of library and textbooks from reputable publishing companies. In states having a

public-library commission a graded list of school libraries may be secured by addressing the secretary of the public-library commission. In the same campaign it is a duty incumbent upon state and county superintendents to warn their teachers against being duped by the oily-tongued swindler who is abroad in every state seeking whom he may devour. In the most courteous language he presents to teachers his reference book prepared especially for teachers, so he claims, but if his siren song fails to coax the teacher to subscribe for his book, he then endeavors to scare her into it by calling her a back-number. One of these sharks called at our office last fall. According to his insidious story he had the most wonderful offer ever made to teachers. He was selling a six-volume concern on which he claimed to make a special rate of $32.70 to teachers on the instalment plan, taking the teacher's note therefor. In the upper left-hand corner of the note were the figures $55.00 in bold black-faced type, which were red-lined out and underneath printed $32.70. Across the note were printed the words "Fifty-five dollars" in bold black-faced type and under them printed the words "Thirty-two and $\frac{70}{100}$ dollars." This reduced rate was for Nebraska teachers only. The $55.00 rate represented the price in eastern and central states like Maine, Vermont, Indiana, and Ohio, if the agent told the truth. But it was on its face a lie. I told him so in just these words and sent him on his way lamenting.

In every state there is a demand for a campaign on compulsory education, better qualified teachers, better paid teachers, certification of teachers, the normal-school idea, professional training for teachers, beautifying of school buildings and grounds, heating, lighting, and ventilating of schoolhouses, consolidation of rural schools, transportation of pupils, free high-school privileges for rural-school pupils, and the organization of boys' and girls' industrial associations with especial reference to agricultural instruction, manual training, and domestic science; but to properly discuss any one of these questions would take more time than is allotted to me for this entire paper. I am compelled to pass these by for want of time and for the reason that many of them have been the subjects of hackneyed discussions in teachers' associations throughout the country for the past five years. However, they are none the less important. I would that I had time to discuss the value of an educational campaign for normal training in our strongest high schools, and the importance of modernizing our high-school course of study. I believe with Commissioner Draper of New York that "The true high-school course is four years in duration. It not only covers classical and mathematical instruction and prepares for entrance to college, but high-school courses have widened out from the old classical lines and have gone into about everything that can aid one to earn a living." Normal training in high schools is no longer an experiment or a temporary expediency in New York, where it has been tried for nearly three-quarters of a century. This is evidenced by the opinion of Commissioner Draper in his annual report for 1905. He says on this subject: "For a long time the state has maintained training classes for teachers in the high schools and academies. These were in charge of the board of regents until 1889, when, by voluntary action of the board and then by legislative act, their management was transferred to the state superintendent of public instruction. These classes are not intended to do the work of the normal schools. They are expected to provide limited instruction in pedagogical courses for beginners in such work who reside in their neighborhood. If often happens that students who begin in these classes acquire an interest in the subjects in which they have been drilled to an extent which leads them to go to the normal schools or to pedagogical courses in the colleges and universities. There are over one hundred of these training-classes in the better academies and high schools in various parts of the state. They are distributed under appointment by the commissioner of education, with some reference to the ability of the schools to care for them and to the convenience of intending students. The expense of these classes to the state is a little more than $100,000 annually. In the last year they instructed 2,921 students." In his annual report for 1906 Commissioner Draper says of this work in the high schools of New York: "The most fruitful if not the most hopeful source of good teachers for the district schools is found in the training-classes. It is

confidently believed that this agency for providing teachers for the rural schools will be ever increasing in its efficiency." In our opinion there is no other avenue open for the training of teachers for the rural schools in Nebraska than through the agency of our strongest high schools. The graduates of the colleges, universities, and advanced courses of our normal schools will be required for superintendents, principals, and high-school and grammar-grade instructors of our town schools. The graduates of the elementary courses in our state and private normal schools will be required for the grade work in town and city schools. It follows that we must look to our high schools to train those who are to teach in the rural schools. It is a condition and not a theory that confronts us.

But the greatest of all educational campaigns that can be waged in this country at this time is for state and county superintendents, high-school principals, and teachers everywhere to unite their forces in giving every American boy and every American girl a thorough eighth-grade education. This minimum amount of education is absolutely essential if we are to make this in reality as well as in name a government of the people, by the people, and for the people. We should give them eight years of education, nine months or 180 days to each year.

What have we done as a nation in the amount of schooling we have given to each inhabitant? The scale gradually ascends from 1870 to 1906, having for the past ten years exceeded five years of 200 days each as the average education given to each member of the entire population of the United States. The maximum was reached in 1900 in about five years and a quarter of 200 days each; that is to say, 1,046 days would have been given to each individual in our country at the rate of public instruction for that year. Do you get the force of these figures? It means this: The average education of all our people—old and young, illiterate and learned, in both state and nation—stops short of finishing the sixth grade. Theoretically, then, we give 100 per cent. of our people almost six years' schooling, but in reality we do not afford 50 per cent. of our people this amount of education. Of the number who enter the first grade less than 30 per cent. finish the eighth grade, and less than 10 per cent. enter the high school. Of those who enter the high school less than 10 per cent. graduate. Of those who enter college or university less than 10 per cent. finish the course.

There are about 25,000,000 children of school age in the United States today. All the children now of school age will have passed beyond the range of public-school education in the next fifteen years, or at the rate of 1,666,000 per year. Since they leave the public schools with an average education of considerably less than six years, if we were to begin now to raise the average education to eight years it would mean at least two years more of education for each individual pupil than we have been giving, or an aggregate of 3,333,000 years more education for all the pupils passing from the public schools each year; and in fifteen years—a decade and a half—it would mean an aggregate of 50,000,000 years more of education for the common people than we are now giving them. In other words, as we ordinarily express school attendance, it would mean an increase in average daily attendance of 3,300,000 pupils, and increasing the length of the term to nine months in the year.

What to teach our teachers in the training schools and what our teachers should teach their pupils in the public schools so as to give our boys and girls a thorough eighth-grade education is a paramount issue in American education today. In Nebraska there is but one subject, under the existing statute, which it is mandatory to teach, namely, physiology and hygiene with special reference to the effect of alcoholic stimulants and other narcotics upon the human system. There is now a great conviction taking fast hold upon the leading educators and the people everywhere that it is much better to teach much of a few things rather than a little of many things. And so came to pass our crusade in Nebraska for the five essentials—reading, arithmetic, grammar, geography, and history. By reading, we mean not only the ability to grasp the thought of the printed page in a silent study of the

book, newspaper, or magazine, but the art of a good oral expression of the thought in the recitation as well as before the school or a public audience. Reading must comprise a knowledge of our best literature and include a mastery of the arts of correct spelling, punctuation, pronunciation, and the proper use of the dictionary. Arithmetic should be intensive rather than extensive. Eliminate stocks and bonds, exchange, alligation, duodecimals, and all such impractical subjects. Make rapidity and accuracy the watchword in the fundamental operations. Let thoroness and exactness be the motto in the principles and applications of fractions, denominate numbers, and percentage. These are the indispensables to be mastered in arithmetic. This subject should also comprise mental arithmetic. Grammar should include English composition and letter-writing. In geography nature-study, agriculture, and commerce must be given consideration. History must not only tell the story of our country—it must teach the principles of free government and the duties of American citizenship.

In the old civilization the *few* led, the *many* followed. And I am led to believe that our system of education, like the old forms of government, forgets the many to care for the few. If it be so, it is a grievous fault, and grievously must we answer for it. Therefore let us inaugurate a system in our education that will prepare the ninety per cent. for the actual problems of life and the everyday responsibilities of American citizens, rather than to create crowns for the few, make educational aristocrats, and kingly interpreters of the more fortunate 10 per cent. "The people must needs take thought of what they shall eat and wherewithal they shall be clothed. And the education that fits them best for this is, from necessity, the best; at least until they are so developed and improved that the people, the great longing, struggling, hungering, needing, hoping, despairing, and yet unyielding people, shall not need to take thought only of what they shall eat and wear."

This would not be an attempt to build society. It would be an attempt by society to build the individual. Such a policy holds that the state is strong in the proportion in which every individual in the state is free, large, educated, independent. The policy too long pursued may have given us a finer educated upper class, nobler and deeper thinkers in greater numbers than we would have were we to bend our efforts along this new line, but we have educated the top long enough at the expense of the bottom. Let us unite to educate society from the bottom to the top. "We are not attempting to lift the favored classes higher; we are not attempting to give to those that already have; we are attempting to put our hands under the foundations of human society and lift everybody up. That is a slower work; but when it is done and its fruits are ripe you will never doubt again which is the wisest and best policy."

DISCUSSION

Mason S. Stone, superintendent of education of Vermont.—We had an educational campaign in Vermont last May and in the evening our governor and one or two other prominent speakers participated. Mr. Cap E. Miller, of Iowa, rendered excellent service n the day meetings by presenting the agricultural phase of education. As the state was ready for an advanced movement along educational lines, these meetings helped to intensify and crystallize opinion, and contributed to the strong constructive legislation of the 1906 session of the General Assembly. This session gave to the state more new and coherent school law and more aid for public schools than any legislature since the state was organized in 1777. The results were an excellent high-school law, a law permitting the consolidation of schools with state aid to the extent of 25 or more per cent. of the transportation expenses of the pupils, an increase in the permanent school fund, and a law permitting two or more districts or townships to unite in employing a supervisor whose salary shall be no less than $1,250, $1,000 of which shall be paid by the state.

We have just completed another campaign for educational purposes. This was to nlighten the people in regard to the needs of our schools, to advocate industrial educa-

tion, to show that our schools are too bookish, and that pupils should be taught to do as well as to know, and also to instruct school officials and others in regard to the new laws and the increased advantages that will accrue to the schools of the state through the new professional supervision system and greater state aid. These meetings have been largely attended, and a greater interest than I have ever known before in the state has been manifested. Therefore, I believe in educational campaigns.

RURAL SCHOOL-BOARD CONVENTIONS

C. P. CARY, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, MADISON, WIS.

I distinctly remember, when I first began to think seriously of teaching school, that my father gave me a very serious talking to on the matter. He had been a farmer on a small scale all his life and he urged upon me that farming was the most independent occupation any man could follow. He thought that school teaching was one of the most unsatisfactory and most dependent occupations a man could follow. He said that the farmer was in a position to ask no odds of anyone; that he could always make a living from his farm, and that while others were dependent upon him he was always independent of others.

I mention this conversation in this connection for the reason that it flashes light upon problems connected with educational affairs in our country schools. It is true that the farmer feels independent of other people industrially, politically, and socially. His occupation is one of the most fundamental and one of the oldest in which modern men engage, strongly tending toward conservatism and individualism. While he has readily enough in past years and generations combined on a small scale with his immediate neighbors in log-rollings, house-raisings, harvesting, threshing, and the like, yet all this has been on terms of complete equality and mutual consent.

Custom has had a strong hold upon the farmer, and even today such remarks as "What was good enough for me is good enough for my children" are far from uncommon. The farmer has in the past been hard pressed to clear off the mortgage from the farm, to get his farm well stocked, and to get new buildings, and it has been his desire to hold the taxes down to about the minimum limit. That this is not true of all farmers or all communities goes without saying, and it also goes without saying that entire states differ in some degree, owing to industrial conditions, nationality, and other causes.

I here speak of traits that tend to manifest themselves in rural populations. It might be added that the farmer has never been a discriminating critic of school work. The teacher who can succeed in getting the good-will of the pupils, no matter by what method, is usually regarded as a successful teacher; while the teacher who has trouble with the pupils is looked upon as a failure, no matter what the circumstances may be leading to the "trouble."

Once more, the farmer, in past years has not had a keen appreciation of the value of an education. To him as a rule an education means ability to read, write, spell, and figure. I remember in my own case, that after I had completed the ordinary work in the country school and had left home, my father one day remarked with considerable earnestness that he was proud of the education he had given his son. He thought and said that I had received at his hands an excellent education. I have no doubt that he was far from being an exceptional case in estimating what constituted an excellent education.

It has happened, then, that our country schools have been far less progressive than city schools generally have been, for the reason that farmers have been slow to realize the desirability of establishing larger units than the little subdistrict schools and they have shown an intense desire to manage these schools for themselves without any outside interference. They have desired to have the school run upon a cheap basis, and to have the architecture of the simplest and most conservative kind. They have been willing to send their children to school in the dead of winter when there was little work to do and have

been willing to send the younger members of the family, whose services were of no economic value, to school in the spring and fall.

County superintendents when elected by popular vote have as a rule been very sensitive to the good-will and approval of the farmer. The result has been that this official has done comparatively little aggressive work in the way of securing better buildings, better ventilation, better teachers, better courses of study, and all other things that make for the upbuilding of a modern school. County superintendents who grew too active in many of these matters were usually put upon the political shelf at the earliest opportunity.

A change, however, is coming over the farmer. The daily newspaper is reaching him, the magazines, the lecturer before the farmer's institutes, political speeches, have of late years contained less of the element designed to appeal to the mob spirit and more to intelligence and reason. The telephone is reaching into the country, likewise the trolly lines. The increase in reading among our farming population in the last decade is something enormous. The farmer shows an increased desire to be up with the times in barn-building, stock-raising, grain-raising, and everything else that pertains to his industrial and economic welfare. It would be strange indeed if he were not growing more sensitive to the needs of the school. Many states have shown a decided tendency toward centralization of various kinds; particularly is this true in the doing-away with the subdistricts and the substitution of the township system or some other large unit in its place. This makes it possible for the people to select, as a rule, a better board of education than could ordinarily be secured in the little district. Less attention is paid to the petty fault-finding or mischief-making of various members of the community. In Wisconsin our experience with the township system has not been altogether satisfactory for the reason that in many cases the board has made use of most of the money in ways that are past finding out. I hasten to say, however, that the township system is not in extensive use in our state, the old subdistrict with its three board members being still in use in practically all except the newer counties in the north. The farmers generally are opposed to any form of consolidation. They are very loath to give up their little home schools, or to surrender in any way their direct management of them.

When I entered upon the work in the office of state superintendent of schools four years ago, it seemed to me that, aside from a few changes in the law, the chief thing that could be accomplished was to carry the message of the newer school, newer educational ideas and ideals directly to the people of the rural districts. The task for a time, however, seemed so large as to be hopeless. Ultimately the plan was evolved of holding school-board conventions systematically in every county in the state at least once a year, and of securing an assistant in the department who should devote his entire time to the rural-school problem, one of his chief duties being to attend these school-board conventions and address the school-board members upon the most immediate and pressing needs of the school. After a good deal of effort, legislation of this sort was secured, and last year school-board conventions were held in every county in our state and, with one or two exceptions due to illness on the part of the speaker, a representative of the educational department was present and made two addresses before the conventions. The subjects taken were "The Minimum Equipment for a Rural School," and "The Sanitary Condition of the School and How to Improve It." The present year the two topics taken were "The School Board and the Teacher" and "The Financial Aspect of the School Problem."

These school-board conventions were attended last year in the aggregate by about 12,000 school-board officers, and this year the number will be somewhat larger. It is too early yet to look for extensive results. Nevertheless, hundreds of schools have doubtless reaped benefits from these meetings. In the first convention that I addressed last fall there chanced to be a county superintendent from another county seated on the platform with me. In the course of my address I turned to him and asked how many schools in his county had purchased ventilating stoves as the result of the school-board conventions held the year before. He replied, twenty. If I had asked him with reference

to the apparatus, I presume that the reply would have been equally satisfactory. Here was a county in which probably one district out of every five or six had within the first year of our efforts made provision for improvement of this one matter of ventilation. I cannot say that this case was typical; probably it was more than the average, yet this is merely a surmise on my part, for I have no data of an accurate sort for determining results that have been reached.

I am well aware that there are a number of other states in which school-board conventions are now held with considerable regularity. There can be no question that the school-board conventions with one or more men going out from the state department of education to assist, is one of the most fruitful movements for the improvement of the county schools. Hundreds of school-board members in my own state have said that never before had they been told what they ought to have in the way of supplies, or that they ought to ventilate the schoolhouse, or that it mattered concerning the manner in which a house is lighted, and the like. We have found the farmers eager, surprisingly eager, for all the information they could obtain concerning improvements in education.

To reinforce what was done the first year, we sent out to the annual meetings a letter to be read by the clerk, bearing upon the questions that had been discussed in the conventions. This of course we shall continue to do from year to year. School-board officers very generally have felt that it was unfortunate that all members of their districts could not be present at these meetings in order that all might have the uplift and the outlook that they themselves received. In a few counties active and interested citizens called meetings at schoolhouses and presented a program of a mixed character, a part of which was intended to serve as missionary work for the good of the schools. We confidently believe that the outcome in a few years will be a deep and far-reaching change of attitude among country people toward the rural-school problem. The present year a part of our efforts were directed toward impressing the school-board members with the necessity, if they really desired to give their children suitable educational opportunities, for better salaries for teachers, longer school terms, better attendance, teachers with greater maturity and better training. In addition to this campaign of education for education, we have for several years past, with more or less regularity, been sending out from our normal schools, institute conductors and other teachers adapted to the work, into the rural districts to visit rural schools, hold evening meetings and teachers' institutes on Saturday. In this way within the past six or eight years many counties have had the benefit of the services of an educational expert and enthusiast for a period of a week or more. The efforts of these men have been unified to the extent that unification was desirable, and the outcome has been excellent.

To sum the matter up in a few words, we need of course good educational laws, but quite as much as educational laws we need campaigns of education for education among our people. I am well aware that the needs of no two states are precisely alike, and yet I think it would be difficult to find a state in which it is not exceedingly desirable to bring the message of education home to every parent.

B. ROUND TABLE OF SUPERINTENDENTS OF SMALLER CITIES

A SEVEN-YEAR COURSE FOR ELEMENTARY SCHOOLS AND A FIVE-YEAR COURSE FOR SECONDARY SCHOOLS

J. M. GREENWOOD, SUPERINTENDENT OF SCHOOLS, KANSAS CITY, MO.

An educational round-table conference is of the nature of an educational clearing-house in which ideas are exchanged, accounts balanced, new experiments outlined, existing methods and processes criticized, and educational systems compared. It is here also

that the widest range of discussion is permitted, and each one advocates or opposes whatever he pleases.

At the outset the writer, however, most earnestly objects to the insinuation recently made by a noted Harvard professor, "that a Round Table is a gathering of from ten to fifty persons in a small room firing squibs at one another." While this vicious definition may be true at Harvard University, it hardly comports with the dignity of this honorable body, or any other similar organization in any state in the Union.

The subject for discussion.—The subject for discussion is Janus-faced; or it is more properly an elementary course of study with a rider attached. On several occasions I have publicly maintained without any qualifications, as a fundamental proposition in elementary education, founded upon an experience now extending over almost thirty-three years, that children admitted to school when six years old or older, can complete reasonably well, as well at least as the children of any large or small system of city schools in the United States can complete, all there is of real value in an elementary course of study in seven years, and that they are just as well fitted for high-school work, or for business, as are those children who are kept sauntering through their elementary studies eight years. The experiment I have made is a good experiment. It gives information outside of mere detached facts, and it enables one to foresee results, or to generalize, which is the real test of any experiment. In fortifying the position I advocated, I submitted courses of study, the work done, as to quantity, quality, and time, and showed that under the conditions existing in the schools of Kansas City, more children entered high school, remained in as long or longer, and that a larger percentage graduated from the high schools, than in any other large city system in this country; furthermore, that 40 per cent. of those who enrolled in high school were boys and 40 per cent. of those who graduated each year were boys, and this has been true of all classes for more than twenty years, and the ratio remains unchanged between the sexes.

It is true that I have united these isolated facts from year to year in a continuous line from one city only, and I have for years challenged any other city of a hundred thousand or more inhabitants to show a higher record of high-school attendance, graduation of pupils, or a larger percentage of pupils in high school as compared with the total school enrollment, the voting population, or the population of the city. I attribute this condition of the high-school situation to the simple fact that Kansas City has always had a seven-year course below the high school, and not to the fact that people of Kansas City entertain a higher appreciation of high-school opportunities than the citizens of other cities. Moreover, from my observation in teaching children and in watching children in school work, I am thoroughly convinced that if a child of average ability is kept out of school till it is eight or nine years old and then entered, it will finish a solid elementary course of study in from three to five years, and will understand all the subjects as well as the pupil of the same ability who begins school at the age of five or six years, and continues in school regularly the full period assigned for elementary work. There is, I am satisfied, a sort of automatic movement of classes in some schools that is very detrimental to the progress of pupils.

The statistics I have collected show that where pupils are given the opportunity under an elastic system of promotions, as many pupils finish the elementary course in six years as those pupils who require eight years, while more than 80 per cent. complete it in seven years under the limitations I have given. With these well-established facts which I have verified time and again, I can see no valid reason for changing my views in reference to a seven-year course for elementary schools. For those wedded to an eight-year course, I will say frankly that I do not agree with them, and never have since I began an investigation of the subject.

Five years in high school.—As to a five-year course in high school, except for slow pupils, I take the negative. There are two valid reasons, in my opinion, why a five-year course, or any other number of years above that number, is unnecessary. The first is

the additional expense. High schools cost a great deal of money as now conducted on a four-year basis, and were they stretched out over a longer period they would be still more expensive. There is a limit to the tax-paying ability of every community in the United States beyond which it is dangerous to go. Many schoolmen seem never to learn this lesson. I need not discuss this phase of the question further.

The second objection that I urge is that an extension of time is unnecessary, and therefore it is undesirable. It would repel instead of attracting pupils. I will submit a few suggestions on the actual workings of the high schools as they are now organized and conducted.

Under college and university pressure, a most baneful influence has fallen upon secondary or high-school education in our country. Ever since the college and universities began tinkering with high-school courses of study, under the cloak of "college requirements," the standard of scholarship has steadily fallen. The wide acreage allowed under the head of optional courses that the pupils may choose from, and the scraps and carved-out pieces of subjects, thrown out of their proper relations, to be learned and assimilated to satisfy the whims or fancies of a set of college professors, is a very poor way to fashion a course of study. Instead of shaping the course to the pupil, the pupil is compressed into the course. This deadly blight has fallen on our public high schools like a mediaeval plague. Everywhere among high-school teachers is a rush and scramble to comply with the "requirements." Everything is prescribed by piece and hour, and there is no time left for teachers to do real educational building, either in scholarship or character development. All is summed up in the one word, "Prescription."

Under the old régime, which was certainly not the best, a pupil was kept at some few things till he learned them fairly well, and he had acquired some power to do many other things. There is now no going through a thing. It is working with some of the pieces of a piece. It is also a continuous and continual flitting from one thing to another, so that the learner has no time to strengthen himself well in any subject. The entire high-school machinery should be reversed and run by another set of engineers and firemen. The high-school principals and teachers should make their own courses of study, adapted to the wants of their several localities, patterned in general on a broad and liberal course, and the colleges and universities should adjust their work to the high-school studies. I do not know how these "requirements" are worked out in detail, but I can imagine! From some of the outlines I have examined and the numerous references interlarded to help the poor overloaded teachers, the tremendous amount of study *not put* on the courses so minutely analyzed, I discern through the murky intellectual atmosphere spheres of influence of a straddling nature to balance diverse interests.

It is a firm conviction in many minds that owing to the detached and dissipating processes now operating in the high schools of the cities, the classes are not so strong in real scholarship as they were before all these distracting and scattering influences came trooping into the recitation rooms. The pupils can dip into more things, but they learn less of everything they are supposed to study. The teachers, too, formerly had some latitude, some freedom, some judgment as to what they had to do, some initiative. Now they have an incubus hanging over them all the time. Formerly they taught—not scattering topics. The pupils were then kept on a subject long enough to know something about it, and to get its bearings with other subjects. Now all the work is prescribed, outlined, gibbeted, sandwiched, and it is exceedingly superficial. Knowledge requires time to soak into the learner's mind, to become seasoned and ready for use.

A few things a high-school graduate should know.—A high-school pupil in four years should be well grounded in the elements, at least, of one or two languages outside of his own tongue; he should have read some few good books in English to give him a little insight into literature, and he ought to be strong in English grammar and rhetoric; he should have a good knowledge of elementary physics and chemistry and some knowledge of his own body; a fair survey of ancient and modern history, reaching down through

European history into the history of this country; he ought to have picked up some general facts belonging to the earth, the air, the ocean; and if he has wandered off into space, so much the better. In mathematics he should have leisurely made his way, at least, through plane trigonometry. Above all, he should have learned how to study, and how to help himself. A few subjects studied well and mastered so far as they are studied, is better for any boy or girl than three times the number leisurely gazed at in passing along.

A weak spot.—Another very weak spot in our high schools, in a majority of cities, is that the pupils about one o'clock each day are sent home that they may prepare their lessons for the next day. As a result of this freedom, many of these boys and girls wander about through town aimlessly of afternoons, and contract the bad habit of putting their lessons off till the very last minute. This is not the worst feature, however, in those cities and towns in which poolrooms and other dens of iniquity are tolerated, no inconsiderable number of these boys drift into crimes, or into habits that lead directly to criminality. High schools, academies, and seminaries used to have all-day sessions—sessions that began at 8:30 A. M. or 9:00 A. M., with an intermission at noon of an hour, or an hour and a half, closing the school day at 4:00 P. M. or 4:30 P. M. Instead of turning the boys and girls loose at one o'clock, or thereabouts, to gad around on the streets the session should not close in the afternoon till the regular time for dismissal. The best place for a boy or a girl to prepare a lesson is in the schoolroom, or study-hall, under the eye of the teacher. Nearly all the lessons should be prepared at school and where the teacher can render some assistance when it is needed.

Right habits of study need to be taught as well as the branches the pupils pursue. Short high-school daily sessions weaken high-school work and induce a species of dissipation that lowers preparation, prevents the cultivation of systematic habits of work, and diminishes the appreciation of high-school opportunities. Short high-school sessions affect injuriously the home life of the pupil, and pave the way for evening parties and other forms of dissipation that are detrimental to close persistent application to studies and besides oftentimes undermine health. There is undoubtedly a close and an intimate relation existing between these two conditions. The argument frequently advanced that high-school teachers, in general, have so much more heavy work to do than the grade teachers, and consequently require shorter hours, is not borne out by the facts. While a grade teacher hears a recitation, she is keeping another class at work preparing the next lesson, and she does this all day long. The softest position in public-school work is in high school. I speak from an experience in class work myself, and also of recitations with higher-grade pupils. Teaching such pupils is not such hard work as teaching in the grades. There are also other distractions and extravagances that exert considerable influence on the progress or non-progress of pupils, which will readily suggest themselves to those familiar with high-school work.

A word on diplomas.—A high-school diploma should show in quantity, quality,and time, what a student has done in certain branches of study. The last spurt in getting ready—dressing up for the final display—should be abolished. A great deal of time is wasted in preparation for graduation. Besides our schools are democratic institutions, and dress-suits and other toggery ill become boys who have to go out and make their own living in the world. Oftentimes such extravagance is a great hardship on parents. Plain dressing and high thoughts would be more in keeping with common-sense.

Back to the subject.—Finally, I see no objection to arranging a five-year course of study for those pupils that are physically, mentally, or otherwise unable to complete an average course of study in four years. Such pupils, and there are probably from 10 to 15 per cent. of them in every school, should not be crowded. For such the course should be lengthened out, but for no others, and on no other condition.

In conclusion, I favor an eleven-year course for elementary and high schools, beginning with pupils at and above the ages I have mentioned; but I am firmly opposed to an eight-year course for elementary schools, or a five-year course for the high-school pupils. The

number twelve is not a magical number in my arithmetical vocabulary when applied to the education of boys and girls.

DISCUSSION

J. H. PHILLIPS, Superintendent of schools, Birmingham, Alabama.—Inasmuch as I heartily indorse nearly all the positions taken by Superintendent Greenwood upon this subject, I shall have very little to add. I have had an experience of ten years with the seven-year plan in the elementary schools, and I have found some very definite advantages in it. The most manifest benefit of this plan is the large increase of pupils entering the high school. Usually the great majority of boys withdraw in the fifth or sixth year of school in order to go to work, or, in some instances, because they become tired of the monotonous stretch of uninspiring work running through eight years of the elementary course. Local conditions of course affect the question. In an industrial community, the temptations to withdraw from school are more alluring, and the nearer the high school can be brought to the boy the more likely will he be to resist these temptations in order to enter. For the past two years, practically all the eligible pupils of the seventh year of our elementary schools have entered the high school. This, I must confess, is due in part to an attractive high-school building, with manual-training and domestic-science facilities, a spacious gymnasium, and a swimming pool. When the boy gets in sight of this high school, he is not satisfied until he gets inside.

Another reason for the adoption of this plan with us is the fact that the legal age for entering the public schools of our state is seven. The pupil is more mature and is able to do stronger work from the start than those who enter at five or six. I contend that a pupil entering at seven can accomplish more in seven years than a pupil entering at five can in eight years.

Another advantage of this plan, I think, is the fact that teachers are compelled to reduce the amount of the formal and mechanical work required, and to give the pupil at an earlier period work of richer content. I am of the opinion that the chief weakness of the elementary schools of the country is the stress that is laid upon the formal and mechanical elements of school work. Much matter is presented to the child whose content involves facts beyond the scope of his experience, and a degree of reasoning power in advance of his maturity. By shortening the time of the elementary course, and introducing a brief review of advanced arithmetic, formal grammar, mathematical geography, and United States history during the last two years of the high-school course, far better results can be obtained.

There is no need, so far as I can see, for a six-year high-school course. I regret the fact that the high school at present is suffering from the dictation of the colleges. Just as our elementary schools today are determining the conditions of high-school entrance, the high schools of the state should determine the conditions of college entrance. It is high time for us to realize that the "chief end" of the public high school is not preparation for college. The "college trust" which now arbitrarily dictates courses of study for our high schools should be superseded by an association of all the high schools in the state, which should determine substantially the conditions for entrance upon a college course. The greatest need of the American high school is a "declaration of independence" from college requirements, which will enable it to accomplish the work needed in sound preparation for citizenship and for life.

R. B. D. SIMONSON, superintendent of schools, Hannibal, Mo.—Because of the brief time allotted me, I shall present few arguments. I must be content, for the most part, with offering statements based upon an observation and experience short and confined to the school system of which I have the honor to be the head. I am not unaware of the danger of founding conclusions on too few data and of the unsoundness of failing to recognize dissimilar conditions existing in different school communities.

As preliminary to the direct discussion of this topic, permit me to say that I do not regard as sacred the quadrennial stages into which it is customary to divide elementary, secondary, and higher education. I have not found in the physical, mental, or spiritual nature of the child any satisfactory reasons for such a division. Perhaps some of you have. If so, I should like to be enlightened.

Again, I believe that all our courses of study should be so arranged as to allow each child to progress as rapidly in each study as his ability and proficiency may warrant and that promotions should be by subjects rather than by classes. Nevertheless, there should be, in my opinion, a limit, somewhat definite, fixed for the completion of what is known as the elementary course; but this limit should not be so fixed and rigid as to produce between this and the secondary course a chasm which requires that skilful bridge building of which we have all heard so much. I further believe that a period of seven years of nine months each is, under effective teaching, a sufficient time for the completion by the average pupil of an elementary course, and that the eighth year of school life should be spent, if possible, in the high school, in intensifying under special teachers, or rather, under the departmental system, the work of the elementary period, and in preparing for the standard secondary course. I have been led to this conclusion by no experience or arguments of others, but by the results of my own observation and experience during the past two years.

Not for the purpose of advertising or even of commending our school system in Hannibal, but because I seem forced to it by the exigencies of the case, I make the following statements:

At the end of our seven years' work, the *Fifth Reader* and two or more classics selected for literary study have been completed. English grammar has been carried through analysis of sentences, a moderately full treatment of the parts of speech, parsing, and considerable composition. A well-sustained and correlated course in nature-study, including plant-study, animal-study, earth-study, weather-study, together with the elements of physiology, physics, and chemistry, has been concluded. Biography, elementary United States history and English history, and finally United States history by topics, have been pursued for three years. The spelling-book has been finished. All the arithmetic necessary for an elementary course and a portion of an advanced text has been taught. A course in general geography extending from home geography, beginning systematically at the opening of the third year to the completion of an advanced text-book, has been pursued.

The course in our eighth year, the first in the high school, consists of English, embracing grammar, composition, and literature: mythology—Guerber's *Myths of Greece and Rome;* arithmetic—including more difficult work in interest and the other applications of percentage, proportion, square root, and its applications, more difficult problems in mensuration, longitude, and time, the metric system, and a general review of the subject; elementary civil government of the United States and the history and civil government of Missouri; drawing—free hand and mechanical.

Our regular high-school curriculum ranks with those of similar institutions in cities of our class.

The teachers in charge of the eighth-year studies are the assistants to the heads of departments; two of the three were promoted from the elementary schools after several years of successful experience therein, two are college graduates and one lacks but a few points of the requisite number to secure a degree from the Chicago University.

With these preliminary statements, I proceed to name as briefly as possible what I conceive to be the advantages of this arrangement.

First, it has secured a large increase both in absolute and relative high-school enrolment. Our city has become during the past two or three years a manufacturing center of some pretensions. The establishment of factories employing child labor tends to decrease high-school enrollment. During the fourteen years from 1892 to 1905, both inclusive,

the average number enrolled in our high school at the end of the fifth month was less than 138, or an average of a little less than 7 per cent. of the entire number enrolled. The average number enrolled at the end of the fifth month of the last two years, or since we removed the eighth grade to the high school, despite the increased demand for child labor during that time, was 300, and the average percentage of high-school enrollment on total enrollment was over 12½.

The erection of a fine new high-school building containing a gymnasium and all the modern conveniences, and the withdrawal of the eighth grade from the elementary school and adding it to the high school will account for some of this relative increase in high-school enrollment, but by no means for all of it. Carefully compiled statistics of twenty-one classes belonging to our various elementary schools from May, 1895, to June, 1905, show that during those years an average of 50 per cent. of the pupils entering school at the beginning of the seventh year had dropped out of school at the end of the eighth year, and of those remaining, 3 per cent. failed to graduate from these schools. Further, a large percentage of the graduates therefrom did not enter the high school. I think I can safely say that this condition of things is not now so serious.

A second advantage is the absolute and relative increase of the number of boys entering the high school. Using for comparison the same periods as before, the average number of boys enrolled in our high school during the first period was less than 39; during the second period, 111. The average percentage of boys on the total high-school enrollment was during the first period less than 28; during the second period, nearly 37.

The boys are now brought within the sphere of the uplifting influence of the high school before the spirit of commercialism has taken a firm hold on them. The greater freedom of the high-school life, the pleasurable experiences in the gymnasium, the presence of the high-school library, the glimpses caught of the laboratories, all tend to excite the ambition of these impressionable boys.

All this contributes to two other advantages, the creation of an aspiration among pupils of the elementary schools to become high-school students, and the prevention of the tendency of the pupils, even in the elementary schools, to drop out.

As to the reality of these advantages, several parents have assured me that previous to the making of the eighth grade a part of our high school their boys seemed to have no ambition to enter the latter, but now, since it is so much closer to them in time, and because of the favorable reports of school associates a year or two in advance but now in the high school, these boys talk of nothing else but continuing in school till their secondary course is completed. Invariably, eighth-grade pupils now in the high school, when asked to give in writing their impressions of that institution, express their preference for the conditions found therein.

Another advantage which has accrued from the plan under consideration is the awakening of a livelier high-school sentiment among our citizens and a clearer recognition of the fact that this institution is the most democratic of our educational institutions. The great increase in enrollment has effected this. Many more of our citizens are thus through their children brought into touch with it and aroused to the desirability of a secondary education.

Our experience so far leads me to mention a sixth advantage, which is the saving of about one-half of a year in the total length of the course. Most of our pupils by reason of the longer periods for recitation and the shorter daily sessions, thus affording more time for study, together with perhaps the better teaching of each branch by a specialist, are able to accomplish all the essential part of the work prescribed for the eighth year in about half of that time.

Lastly, it is the testimony of several of our high-school teachers who have ninth-year studies that the pupils who have taken their preparatory work in the high school are better fitted for these studies than were those who formerly remained the whole eight years in the elementary schools. Without in the least reflecting upon the often excellent teaching

of the eighth-grade teachers in these latter schools, I think the reasons for this are obvious.

Now, in presenting these advantages of changing the elementary course from eight to seven years, and of making the high-school course five years, I may be grossly in error; but since I am from Missouri, I shall have to be shown—wherein.

I may now turn to some of the disadvantages of the plan, alleged and real.

One of the alleged disadvantages is the immaturity of the pupils when they enter the high school at the beginning of the eighth year in school. Well, the pupils of the eighth grade admitted to our high school in January averaged: boys, 14 years, 1 month; girls, 14 years, 2 months. These pupils were probably a little older than the average of that grade because the teachers of the seventh grade had been strengthening them. But it can be seen that they were not too immature to take the course which we have mapped out nor to receive the inspiration which the high school affords.

Another alleged disadvantage is the removal of children of so tender an age from the influence and fostering care of a single teacher and the distribution of responsibility for them among several teachers. This objection may have some force, especially if the single teacher is a very lovable and efficient one. But why not make the same objection to any form of departmental instruction; why not make it in the case of ninth-grade pupils, many of whom are not older than fourteen? Is it not also true that about this age boys especially become tired of being "mothered," and will be developed better if they are less guided and pampered (or nagged) and a little more "fathered"?

I mention but one more alleged disadvantage; it is the lowering of the dignity of the high school by incorporating in the student-body a lot of "babies." So far, I have failed to see the force of this objection. If it has any it is more than offset by the dignifying of said babies.

A real disadvantage that we have felt is the opposition of some of our principals to the plan because it deprives them of their advanced class, thus compelling them to relinquish the pleasure of teaching pupils of the maturity of eighth-graders and leading them to dispense with graduating exercises, etc., etc.

I regret this opposition very much and can sympathize with them in the matter, but so far as the public graduating exercises at the end of the elementary course are concerned, I have come to the conclusion that they do not incite the graduates to go higher in their course; and many parents are now-a-days objecting to the expense to them attending the so-called commencements.

I mention lastly as a disadvantage, which threatens to become real to us in Hannibal in the event that our high-school enrollment maintains its rate of increase made during the past two years, a lack of room in the high-school building. Under such conditions the plan cannot be perpetuated except by pushing the eighth-year pupils back into some central building as near as possible to the high school, and placing them under a principal for that grade and his or her assistants, or by adding rooms to the high-school building.

Doubtless, in many medium or small cities the high-school building cannot accommodate a five-year high school.

WHAT SHOULD THE SMALLER CITIES ATTEMPT FOR THE EDUCATION OF DEFECTIVE CHILDREN—PHYSICAL, MENTAL, AND MORAL?

JOHN DIETRICH, SUPERINTENDENT OF SCHOOLS, COLORADO SPRINGS, COLORADO

"It is the function of the state to force men to be free." It is the right of every child to receive an education. The opportunity and the means should be provided by the parent and the state. Even the defective child is capable of taking some sort of an education that will make him a happier and a more useful citizen than he would otherwise be.

He is entitled to all he is capable of receiving, whether that be five talents, two talents, or one talent—"every man according to his several ability." "Education is a productive expenditure, not mere charity."

Problems pertaining to the welfare of normal children have been met and discussed, and better ways have been devised and more adequate means have been provided for their development. Until within the last fifteen years little attention had been given to the defective or backward child. The great progress that has been made in the department of special education during the last decade is another evidence of the whole-hearted educational spirit of the American people. We have at last come to believe that many so-called dull or defective children are capable of receiving mental training to a degree of efficiency far beyond the most conservative estimates of educators of a few years ago. The amount of development that many of these children are capable of, when properly directed by a trained teacher, is simply astonishing.

In speaking of the possibility of educating even idiots, one writer says, "Idiots have been improved, educated, and even cured; not one in a thousand has been entirely refractory to treatment; not one in a hundred who has not been made more happy and healthy; more than 30 per cent. have been taught to conform to moral and social law, and rendered capable of order, of good feeling, and of working like the third of a man; more than 40 per cent. have become capable of the ordinary transactions of life under friendly control, of understanding moral and social abstractions, of working like two-thirds of a man; and 25 to 30 per cent. have come nearer and nearer the standard of manhood, till some of them will defy the scrutiny of good judges when compared with ordinary young men and women."

We have come to realize also that the number of defectives is increasing at an alarming rate, as a result of the lethargy on our part regarding the problem of subnormal children. In 1890 there were two weak-minded persons to every one thousand people in the United States, or about one-fifth of 1 per cent. About one-half of 1 per cent. or five to every one thousand of the pupils in our public schools today are subnormal, with all possible variety of grades, from those who are merely somewhat slow to imbeciles and idiots. About 95 per cent. of all dull or backward children are defective mentally or physically.

"Practically we have experienced that whether from barbarism and strain of war, or from the little less strenuous anxieties and struggles of our industrial and commercial civilization, or whether from other human strains, dissipations, accidents, and excesses, a large part of our fellow human beings have lost a part, and some the whole, of the original divine heritage of their five natural senses, and that it is these maimed, deprived, disinherited individuals that constitute what is known as our defective classes; and that if some distinctively and effectively preventive means are not speedily adopted, vigorously prosecuted, and resolutely persisted in, a degeneracy—mental, moral, and physical and of the darkest type—will be the immediate and logical result."

These problems thus forced upon us by the defective classes must be met. The schools of the small city as well as those of the large city must share in their solution. In many instances the work of the small city through its school system will necessarily be somewhat indirect. This will be especially true of cities ranging from two to five thousand inhabitants. In cities having from five to fifty thousand inhabitants the work may be direct.

About twenty states have made some provision for caring for the feeble minded. There are also as many private institutions for weak-minded persons. From forty replies received from city superintendents of schools in answer to the question, "What provision, if any, are you making for the education of the feeble-minded children in the public schools of your city?" it is evident that about half of them are doing something for these unfortunates; about one-fourth of them believe that the smaller cities can deal as effectvely with the problem of the education of subnormal children as the large cities. All

consider it essential to have state institutions for the education of the feeble minded. About one-third of these superintendents state that state institutions for weak-minded children should supplement the work of the public school, and the remainder of the answers favor these institutions taking complete charge of the education of defectives from the beginning, and especially so, when these children are residents of the smaller cities and rural districts.

These replies indicate that there is a marked and growing interest on the part of boards of education, city superintendents and teachers, looking toward the answer to the question, "What should the schools attempt for the education of defective, backward, or subnormal children?"

Among the large cities in this country that are giving some special attention to the education of defectives are Chicago, Baltimore, Philadelphia, and New York. San Francisco had begun the organization of special schools just prior to the earthquake. Chicago makes no provision for idiots of the first, second, or third degree, nor for subnormal children of the first degree, that is, children who are so subnormal that they will *not* be able with *special training* to attain to the equivalent of the fourth grade on reaching the age of fourteen years. Those children who are able to reach this standard are placed in special rooms for subnormal children. They are taught by special teachers, and have, in a great majority of cases, come up to the expectations of the supervisor and teacher. In Baltimore subnormal children are placed in ungraded rooms. Philadelphia has ten truant schools. These are distributed over the city. In each of nine of these there is a room for defective children. New York City has about forty ungraded classes for defectives. The rooms occupied by these pupils are connected with the public schools in order that they may feel that they are a part of the public-school system, and also to give them an opportunity to mingle with the other pupils in going to and from school and while on the playgrounds.

London has a plan of her own for caring for subnormal children. By a rigid examination conducted by a committee of experts, epileptics and the lower grades of mentally deficient children are eliminated from the public schools. These are cared for in a boarding-home. The remainder of the subnormal children are placed in one of the following groups—blind, deaf, mentally deficient, and cripples. The more exaggerated cases of cripples are placed under special teachers and are not assigned to this fourth group.

Among the smaller and medium-sized cities of this country that have made some provision for subnormal children may be noted, Denver with ungraded departments; New Haven, Connecticut, uses one room in her main school building which is in charge of a special teacher; Providence, Rhode Island, has had special schools for defectives for ten years, there being three such schools in this city at the present time, with an average attendance of fifteen pupils each; Rochester, New York, has one room for defectives; Worcester, Mass., has five departments for subnormal children; Patterson, New Jersey, does not set apart a room for defectives but organizes classes for subnormal children in the same room with normal pupils; Los Angeles has twenty ungraded rooms for defectives.

That there is a real need for special work for the betterment of subnormal children in the schools of the smaller cities is self-evident, but in many of these places the mere suggestion of an attempt to do something for these unfortunates would bring forth the cry so often heard upon the eve of a needed innovation, "O, The cost! The cost!" But in this instance the cost need not be alarming. The principal item of expense in the small city would be the salaries of trained teachers for the special department. Should it not be desirable to set apart a room in a regular school building, a cottage could be built on some site already owned by the district at a nominal cost. The average city of say from fifteen to forty thousand inhabitants, would have enough of defective pupils to warrant the organization of at least one department for such pupils, and if so-called slow and dull pupils are to receive special treatment, there would be need for several ungraded departments. The enrollment in these special departments should not exceed say fifteen

pupils. In the smaller cities ranging from one thousand to fifteen thousand inhabitants, special classes for defectives could be organized in the same department with normal pupils. While this plan is far from ideal and is not conducive to the best interests of normal or subnormal pupils, it would be found far better than no plan at all for caring for defectives. It is highly important and conducive to the interest of both the normal and subnormal children that they be in separate rooms. Both classes will do better work when so seated. This will be found especially true of the work of defective children. Every precaution should be taken to have defective children escape from the feeling of inferiority. Very much will be gained by having them associate with their peers. Where there are enough of these defectives to warrant more than one special department in the same school there should be a complete segregation of the sexes in the schoolroom, but not on the playground, provided, however, that the playground is under the supervision of some officer of the school during intermission hours.

The question may be asked, "Why not send the defectives of small cities to special departments in large cities, or to some state or private institution for the feeble minded?" It must be evident to any thoughtful person that many of these subnormal children have excellent homes, and that they much prefer to be at home, and that their parents much prefer to have them at home. They will do better work when contented and happy. Again, it is highly important for the sake of the best results in the training of defectives that their education should begin at a very early age, say at five or six years, and as a rule if these children must be sent away from home this would be impracticable, while in their own city their education might begin at that early age.

Why not allow the home to educate the defective? It has been found that home education is unsatisfactory. The influence of the mother for instance under the same roof with the child is usually a hindrance. Many parents prefer that these children be educated in the home because they fear that development will be retarded by association with other subnormal children. But this is not true. Some of the best teachers in charge of these special departments tell us that the mass recitation as a rule accomplishes more for the subnormal child than does the individual plan.

Special departments may be quickly and easily organized. There should be a committee to determine who are eligible for membership in these special departments. This committee may consist of the superintendent, principal, teacher, and school physician, if there be one. If there is no school physician then the city health officer should be a member of the committee. This committee should by careful tests determine who are defectives. Under rules adopted by the board of education these pupils may be broken up into groups. Some of these defectives under the board's rules and the rules of the state school for the feeble minded, should be sent to this institution at once. The remainder of them should be carefully classified and assigned to a class or department for weak-minded children. It should also be the duty of this committee to determine when a pupil of the special school should be transferred to the regular school for normal children. It should also be the prerogative and duty of this committee to make recommendations from time to time to the authorities of the state institution for the feeble minded regarding the transfer of certain pupils, for whom the special department can do no more, to the *state institution* for such pupils. Rules governing the transfer of pupils to and from these special schools should be so framed as to meet the needs of the particular city or locality.

It should be the aim of the special department to use the course of study of the regular school, but it will be found necessary to modify it to suit the capacity and the needs of the several grades of defectives. Much attention should be given to industrial work, nature-study, and physical culture, especially out-of-door exercise. Much may be accomplished for these children mentally and morally through a rigid course of physical development. The fundamental branches should be presented in a simple and practical way. No attempt should be made to cover a previously specified amount of work.

Only trained teachers should be placed in charge of these departments. The best

teachers will be those who have had experience with the healthy mental type of pupils. Teachers of defectives should have special powers of adaptability and insight. They should be sympathetic. The state should license them and should in some way manifest a complimentary recognition of their skill or fitness for this special work. Such recognition would encourage first-class teachers to seek positions in schools for subnormal children. Boards of education and superintendents should improve every opportunity to determine the best methods and devise the most effective means for educating those who may be assigned to these schools. Every problem of the special school should be dealt with in a practical way. The machinery of the entire public-school system should be available for the support of the special school or department in its important mission. Every reasonable effort should be made for the immediate amelioration of the sad condition of these unfortunate children, and for its ultimate extirpation. From the work of the special department will come a demand for endowed schools and endowments for the support of investigators in the interest of defective classes. The work of the special department in a system of public schools will be the means of making every teacher more thoughtful as regards the welfare of subnormal children. It will be the means of directing a more careful study of every child on the part of teachers and parents. The most prevalent causes of defectives will be discovered and remedies suggested and applied. It will stimulate greater effort to prevent the impairment of one or more of the child's senses, thus removing or reducing the prevalent causes, such as tuberculosis, alcoholism, rickets, adenoids, infectious diseases, and malnutrition to a minimum.

These special schools will create a demand for custodial schools. Many a so-called dull and backward pupil who is now inclined to leave school early in his educational career, more or less discouraged, will, through the kind offices of the special department, be induced to remain in school. The special school will be the means of saving many a so-called dull and backward child, who is not mentally defective, but only seems so because of a defect of his sight or hearing, or because of a lack of nutritious food, rather than a defect of the mind, from a life of sadness and failure to a life of happiness and usefulness. It is indeed true that the cause or seat of the trouble does not always readily appear to the unprofessional observer, but the trained teacher and the medical official quickly discover it by simple tests.

Even in the absence of a special department or a special class for defectives much may be done by the small city, through its schools, to alleviate the condition of defectives and to retard the increase of subnormal children in the community. The entire corps of teachers may be directed in a careful study of the causes of this sad condition and how to remove them, and also of the best methods of treating the feeble minded. The interest of the school in these matters will soon enlist the co-operation of the home and the community.

"Physicians may safeguard the sanitary interests of the community, the state, and the nation; in just the same way the teachers of our land may stand as a great bulwark of strength and protection between the American people and the threatening dangers resulting from inherited mental and moral weakness and disease. Just in proportion as they realize the importance of their mission and are suitably equipped for carrying it out, just in that proportion will the number of really efficient men and women increase and the number of inefficient and incapable decrease. It seems that it has been reserved for the schools of today to take up questions pertaining to subnormal children—those that come into the world handicapped by mental and moral deficiency, and solve them, not only in the interest of the deficient, but for the welfare of the community at large. Scientific methods must be employed. "Science thought is human progress itself."

DISCUSSION

GEORGE A. FRANKLIN, superintendent of schools, Austin, Minn.—In the discussion of this subject I can only hope to emphasize some of the points so well set forth in the very

complete presentation to which we have just listened. Having worked for twelve years in a city in which were located three state schools—for deaf, blind, and feeble minded—and observing the excellent results obtained in each—I naturally believe that, for those children defective to a considerable degree, such schools are the best. I doubt if even the large city can so successfully care for its defectives as can the state.

But we are interested in that class of defectives who are able, under proper care and guidance, to make some progress in our public schools, without interfering with the rights of the normal children. We must analyze the question from two standpoints, as has been suggested by Superintendent Dietrich: (1) How can we deal with the causes which produce defectiveness? (2) How can we deal with the child himself, so as to make of him a self-supporting, honest citizen?

We have just heard how alarmingly the percentage of subnormal children has increased during the past sixteen years. Much of this is beyond our power to remedy, either directly or indirectly. We can do something. We should do all we can for the betterment of the home—the home of today and the home of the future—and of public sentiment. The home is the most potent influence exerted upon the child. Many of the physical and mental, and most of the moral, defects are directly traceable to the home. Neglect, poor food, irregularity, unhappiness, and often cruelty and vice are the home companions of the young. Ignorance is often the cause. We should try by parents' meetings, through the public press, and by private interviews to raise the sentiment of the parents to a better understanding of what the child needs. We must interest them in our plans for their children and create a helpful sympathy. Much may be done in this way in our smaller cities where the teacher is personally known and is one of the people.

The child himself.—The ungraded room and special department are profitably employed. When these are not possible for any cause, and sometimes when they are at hand, a greater elasticity of our gradation is desirable. Many of these subnormal children are deficient in certain lines. With the comparatively few cases to deal with, it will cause very little confusion to have the children go to two or three rooms to recite. I have sent pupils to two or three grades below the room in which they sat to pursue the study or studies in which they were the most deficient. This enables them to associate with pupils of more nearly their own age and with whom they have much in common. They are not so much discouraged and often make more rapid progress. The teachers may at first object, but soon fall in line and like the plan. We cannot afford to be too rigid in our adherence to our system—to our perfect gradation—not only for the sake of our subnormal but also for our normal children.

Industrial work should be freely employed in all our schools. The time has come when even the smallest cities recognize that our educational system is incomplete without manual training and domestic science, and they are rapidly finding that the cost must not stand in the way of their introduction. Not only for the normal child is this work needed, but for the backward pupil, who often discovers that which he can do well and with sustained interest. This success stimulates his mental activities, makes him happier, more self-respecting and self-reliant. In the case of the morally deficient child I have known cases where the transformation was marvelous.

In the domestic-science department the backward girl sometimes finds her sphere of interest and usefulness. It is here that I look for the greatest hope for the home of the future, and the removal of much of the cause of deficiency. If our girls are trained in the home arts as well as in the academic branches they will be able to make true homes. They will help make the husband's salary provide for the wants of the family, and as a result health, contentment, and happiness—the best foundation for uprightness—will possess the home.

But it is for the morally defective that I would especially plead. In a paper read before one of our Minnesota Teachers' Associations this year, Superintendent Whittier, of the State Training School for boys and girls, told the following incident:

"Just before the State Fair, one of the advertising pictures of the famous pacing horse, Dan Patch, found its way into the State Training School. It represented the horse coming straight toward you with its excited eye, dilated nostrils, and wonderful stride, and made a picture almost startling in its vividness. It was, by some of the boys, tacked to the wall in the engine-room. Under the picture was printed in bold type, 'The fastest horse the world has ever seen.' Some boy wrote immediately under this, 'The fastest world the horse has ever seen.' As I stood looking at it for the first time, one of our inmates came along, looked at the picture and read what was printed and written, and with an expression of sadness and regret, added, 'Too fast for me. That is why I am here.' "

We must do more for the child in this fast world in which he is living. In our public schools we must employ, more than we are now doing, the methods used in our training-schools and reformatories, and practice the principles of Judge Lindsley and others of the Juvenile courts. We must be taught that while the harsh measures may produce the quickest results, they do not reach the root of the evil. How often we punish a boy for what his parents are to blame. True, one generation must suffer for the sins of the preceding ones, but our treatment of the bad boy or girl, whose parents are arrayed against justice and truth and against the school authority, must be tempered by mercy, kindness, and love—that love which perhaps the incorrigible is so much in need of. He sometimes thinks no one cares for him, is unhappy and desperate. It is the happy person who does right easily, and the unhappy one finds it almost impossible to do right.

All have some good qualities. We must recognize and cultivate these, show the child we have interest and confidence in him and lead him to see that he can fill an important place in this "fast world." Many a child dislikes school and with good reason. Little will be accomplished in such an atmosphere. In the smaller cities we may be able to do more than in the larger ones to make the school surroundings attractive, or substitute a teacher who will. The poor teacher must be sacrificed for the school, the perfect machine for the individual needs of the pupil.

J. W. KUYKENDALL, superintendent of schools, Ft. Smith, Ark.—In considering what the smaller cities should attempt for the education of defective children, I think we will do well to consider them in two classes. In the first class I would include those whose defects are so marked as to necessitate special schools or asylums, as the blind, the deaf mute, the imbecile, and the depraved. Such special institutions form no proper part of the public-school system of a small city. The care of these unfortunates may be more properly undertaken by the county and state.

But the other class, whose deficiencies are such as to render them less helpless, but nevertheless to unfit them for doing the ordinary work of the schools, presents a problem for the consideration of the school authorities of a small city. In this class, we may include (1) those children whose eyesight, hearing, or speech so hampers them as to impede their progress in school, (2) those dull, backward children who constantly fall behind their classmates each year, becoming a residue of each promotion, until discouraged they disappear from the schools, (3) those abnormal children who develop an aptitude for certain lines of thought but seem hopelessly deficient in others, and (4) those occasional children who manifest a tendency to kleptomania or other moral diseases.

How shall the small city meet its manifest obligation to these "misfits," so universally found in our schoolrooms? If a proper place for these deficient children can be found within the possibilities of our small cities, a blessing will not only result to these sub-normal children but also to the normal children, to whom the presence of these "misfits" is a constant impediment. I believe the only practical solution lies in the establishing of special rooms and special schools, where the most skilful teachers may be assigned, each to take charge in limited number of these children and give them that individual care which alone can supply their several needs, and where needed medical attention may also be supplied.

That there are difficulties in the way of establishing these rooms and schools goes

without saying. The first difficulty that will present itself is a financial one. Most small cities need better school facilities for their normal children and school authorities will hesitate to spend their meager revenues upon the sub-normal. I shall not stop to discuss this phase of the question, but, leaving each one who realizes the necessity to meet this problem in his own way, I shall pass to the most serious difficulty that is to be found in establishing these special schools. This is the very natural opposition offered by parents to having their children taken from their accustomed places in the schools and sent to these special schools. If these schools partake of the nature of asylums for the infirm, physically or mentally, a parent may very justly object to placing upon his child the stigma of having been an inmate therein. This, at first thought, seems to destroy at once the usefulness of these special schools, and to make their establishment unwise.

In order to avoid this source of opposition, these special schools should not be asylums or schools for the unfortunate, and they may be made to partake of an entirely different nature by enlarging their scope. In addition to the classes named above, we have another class of children to whom a well-managed special school would prove an unalloyed blessing, the child who is several years behind his fellows of the same age. At this meeting one year ago the attitude of these children in the regular classes was shown by Miss Richman, District Superintendent of New York City, in these words, "Let me say right here that the first-year classes are meant for babes, and the second-year classes for those a bit older; and the child of ten or eleven or twelve or older has no place in the regular classes of the first three years, no matter how ignorant he may be of reading, writing, or arithmetic. Such a classification of the older boy has a bad subjective influence upon him, and a correspondingly bad objective influence upon the child for whom the grade work was planned."

This class of over-age children is made up of many elements. It includes nearly all the "bad boys" whose deeds of misconduct are usually the outgrowth of idleness and of lack of harmony with their surroundings. Our foreign-born children contribute their quota to this class. I recently observed a Syrian boy of sixteen in a first-grade room, who within three months was able to advance as many grades. Lack of early opportunities for attending school is a fruitful source of backwardness. The surrounding rural communities annually contribute a large number of such children to the schools of a small city.

My plea, then, is for the establishment of ungraded rooms or schools wherein each abnormal child, each "misfit," may receive the instruction most suited to his needs. I urge that these schools be made attractive by removing from them the character of asylums for the unfortunate, and by including in their course of study a large element of practical, concrete work. Sloyd, basketry, weaving, woodworking, and domestic science should be the leading features. The essentials, reading, writing, spelling, arithmetic, etc., should be well taught. But the one essential of the curriculum should be its elasticity, so that each case may be treated according to its individual needs. The child who is assigned to such a school should be kept just so long as is absolutely necessary to fit him to return to the regular classes or to fit him to be a self-reliant, self-sustaining member of society. No standards of promotion or graduation, which may be ever so admirably fitted to the normal child, should be permitted to stand in the way of the proper disposal of such a student. Such schools would not conflict with the standards of the regular school system, for the reason that their patronage is only of those who never complete the work of the grades, but who soon fall out of school to become the large army of hopelessly dependent, to enter the workshop or factory, or to swell the number of street gamins, the embryo criminals.

Reverting to the question of cost, the failure to provide the means whereby these classes may become self-sustaining citizens is the most costly economy that our cities, large or small, can indulge. What right can the community claim to tax all the property for public education on the plea of the public weal, while it neglects to provide for those in greatest need, for those who are its greatest menace?

THE RELATION OF THE PHYSICAL NATURE OF THE CHILD TO HIS MENTAL AND MORAL DEVELOPMENT

GEO. W. REID, SUPERINTENDENT CITY SCHOOLS, MONROE, LA.

Mental activity has its foundation in physical activity. Nervous action is the result of a certain stimulus upon a certain physical organ; hence the mental activity is influenced by the nervous action.

We are told that the nervous system is made up of neurons, and that each neuron consists of a cell and a fiber. The fibers extend in all directions throughout the body, permeating every tissue, dividing and subdividing, until they end in the periphery of the organs. Although these neurons run side by side, cross each other, yet the impulse received by one is never influenced by that of another, except by the process of induction.

A great number of impulses may be received at one time. By induction the impulse of one neuron may influence the impulse of another neruon which it crosses; at the same time it may be influenced by the impulse already there. From these impulses, somehow, mental states or conditions arise. As the physical body of the child develops, new and varied impulses are received which change the physical nature. Since there are three general periods of development in the physical child, there ought to be, at least, three general periods in the development of the physical nature.

Only a small part of that period of the development of the child from two years to seven comes under the direct supervision of the teacher. We know that the body and the brain have developed rapidly up to and including seven years. So rapid has been the development of the brain that at the age of eight it has almost attained its full size. During this period the body is attacked by the infectious diseases common to early childhood. Nervous diseases are quite common, convulsions, bad dreams, stammering, squinting, etc. I have observed that where a child at this age has strabismus its physical nature is more reticent. It does not seek companions. Its mental development is somewhat slower. Where strabismus is the result of some spinal affection during the first years of infancy, the mental development is slower than in the child where strabismus is caused by some visible defect, as in the lens or a muscle.

Oftentimes the hearing of the child is defective and the fact is unknown both to the parent and the child. This is often due to what is known as risings in the ear during early infancy. While defective hearing does not affect the physical nature of the child, at this age, as much as defective sight, the teacher will soon discover that his mental development is slower, and that special arrangements must be made for him.

During the second period of development, from eight to eleven, there is noticeable a great change in his physical nature. This is a critical period of the child's life. The brain grows slowly; the vascular system is at a standstill, while the muscular development leaps forward in great strides. Because of these conditions physical fatigue manifests itself, and not only physical fatigue but mental fatigue with all the nervous accompaniments, otherwise unaccountable. The child is able to do less work at the age of eight than at the age of seven. One of the first symptoms of this period is the seeming appearance of laziness. He is now in the third-grade work, and we as teachers demand more work than the year previous, while parents are calling for more and better results. What must be the effect upon that nature mentally and morally, that is constantly being nagged by teachers and parents, when it is now doing its very best? He is peevish, irritable, and has little ambition to accomplish anything. He is subject to all diseases, somatic and nervous, of the period just passed and those of early childhood. Fortunately for him the fatigue part of this period lasts but a few months, but sometimes it may extend over two years.

One of the most common diseases of this period is that of adenoid growths. It is claimed that about 37 per cent. of our children have these growths to some extent. We have all seen the dull, listless, stupid expression on the child's face; the staring eyes,

wrinkled face, the open mouth; have heard the indistinct speech, and noticed the defective hearing. These cases we report to parents and physicians, but there are pupils in whom the diagnosis is not so clear, those who today breathe with perfect freedom, hear distinctly, and do their work well, but tomorrow come with dull expressions; they hear indistinctly; they breathe with difficulty; their lessons are unprepared. Why? Because last night cold settled in the adenoid growth. It is inflamed, and as it hangs there in the pharynx just in front of the openings to the Eustachian tubes, the granulations so swollen that they touch the tubercle projections at the beginning of the Eustachian tubes, thus preventing the same pressure of air against the tympanum on the inside as on the out, the roaring sensation is produced, the dull expression exists, and the depressing feeling that is so characteristic of such conditions permeates the whole physical nature. If this is allowed to continue the child deteriorates. He grows mentally weaker; not only that, but he is affected morally, because he sees that he is blamed unjustly, and traits of character are developed that should not be found in the normal child. Many of these growths are absorbed as the child grows older, but the effect left on him mentally and morally stands forever.

Another disease common to this period of development which has much influence over the physical nature, and as a result a mental and moral influence, which decreases the efficiency of the child, is chorea. We are told that one of the growing results of our school system is the nervous child. This disease comes on so gradually that before we are aware his physical nature is undermined. He is blamed, scolded, censured, because he does not write or draw as well as he did a month ago. When sent to the board he drops the eraser, chalk, book unintentionally. Again he is scolded or punished in some way. If he is carefully watched we will see that all his movements are spasmodic, irregular, jerking. This does not last long—two or three months—and usually occurs in the spring of the year; but the influence upon the mental and moral nature, if not discovered by the teacher, and handled in a sympathetic way, will be to reduce its mentality, and create an irritable disposition.

The third period in the physical development of the child is included between the ages of 11 and 16. During the years previous to these the child has been storing up strength for the struggle through which he must pass. The age of puberty is at hand. The strife that is going on in the development of the physical organisms is so great that mental growth practically ceases. If we would go through the entire category of different kinds of natures and dispositions that are common to the race, we would see that the child passes through all of them and has a few more to stamp his own individuality.

If we examine the bodily development, we see that the muscles and bones lengthen so rapidly that the brain is unable to adjust itself to the new demands, and as a result the movements are awkward, ungainly, clumsy. The boy is all feet and hands, and what to do with the things puzzles him somewhat more than his school work.

He is in a morbid state of mind, so much so that he cares not what he does nor where it is done. He does not know why he does these things, but at the same time he will try to make you believe he knows why. He will listen to a reprimand or an approving utterance, but we never know from any outward sign or manifestation the result.

He believes that parents, teachers, and friends are against him; in fact he thinks he must fight everyone and everything to accomplish—what? He does not know. Mentally and physically he is incapable of doing as much, in the same time, as he did at the age of 10 or 11 years. But everyone demands more, and as a result his mind is warped. He begins to separate himself from the world around him. As the caterpillar grows to an enormous state, and then begins to spin the beautiful cocoon and shut itself in from the outside world, there to undergo a wonderful transformation and finally to burst forth a magnificent specimen of its species so the boy begins to weave a web of such delicate texture with such subtleness, that before we are aware, we are shut out of his life—our control over him is gone.

Happy is the parent or teacher whose relationship with the boy has been such, that when he shuts up that life of his from the outside world, he will be included in it, that he may direct, and lead him through this transformation so that when he emerges he may come forth a magnificent specimen of man.

DISCUSSION

J. A. STEWART, superintendent of schools, Bay City, Mich.—The speaker remarked by way of explanation rather than apology that naturally it was somewhat embarrassing to discuss a paper which had not been presented but, as he had learned a few days previously that such might be the case and that no "core" might be expected to fall his way, he had gathered together a few ideas on the subject under consideration. He was well aware that there are all kinds of teachers, ranging from the selfish, mercenary, unfeeling, sour, crabbed, harsh, and unsympathetic, to those abounding in sympathy, mellowed by a life filled with good works, patient, longsuffering, walking in the footsteps of the great Master and Teacher, and like Him broad-minded with a heart large enough to take in even the ragged and dirty little specimen of humanity that often becomes transfigured under the genial influence of the teacher's loving care. There are but few samples now of Squeers and Ichabod Crane. The great mass of the teachers are trying to lead the higher life and point the way to their pupils.

This means far more responsibility than formerly, covering, as it does, not only the intellectual but the physical as well. The scope of our work has materially broadened. The child is no longer regarded as a receptacle for the inpouring of a mass of information, new and old, but an immortal soul with unlimited capacities to be developed, who is to be brought into harmony with his environment, with physical powers to be trained, a conscience to be evolved, and as a future citizen to be fitted for the intelligent use of his powers and privileges. The teacher in an effort to reach the highest results finds it necessary to reach out beyond the confines of the schoolroom. As indicated by the excellent paper presented by Miss Harris on Monday, we must take the child from the very moment of its birth. This cannot mean simply to care for its physical well-being. The little brain must be trained to manage and manipulate the various parts of the body. We must give it a healthy body, largely as the best accompaniment of a strong mental equipment. If we are to believe and trust the conclusions drawn by eminent specialists who have made a study of the functions of the brain, we must conclude that only in working for the harmonious development of mind and body can we meet with any fair measure of success.

In *The Nervous System of the Child*, Francis Walker, M.D., of London, has this to say:

"The brain is the physical basis, the seat of mental action such as is expressed in gesture, movement, or spoken or written words; further, the action of the brain gives vitality to the body, controlling its nutrition as well as the processes of digestion, respiration and circulation." (Page 5.)

Furthermore he says:

"Teachers see the child in the school in the morning, fresh and active, when he may be quick, eager, and conscientious in work; the parents see him at night, tired, peevish, and fretful, as well as disinclined for either food or rest. Observation might soon show at what period in the day fatigue signs commence—when, though mental work continues under the stimulus of school surroundings, the brain nutrition begins to decline." (Page 7)

He stood for the admission of the child into school at the earliest possible moment believing the average teacher to be better fitted than the average parent to direct the child in the use of its body and mind. Five years of age is none too young, nor even four. He believed also in longer school hours, rather than shorter, with more rest periods and less intensive work. It is not necessary to keep the school in a fever of excitement throughout the session. He would have the pupils active but not anxious. The teacher must study the nervous temperament of the child and be its guardian in the true sense of the term.

THE OVERCROWDED CURRICULUM

G. V. BUCHANAN, SUPERINTENDENT OF SCHOOLS, SEDALIA, MO.

The public-school curriculum of today contains more branches of study and more drills than did that of half a century ago. This fact, taken alone, would suggest a crowded condition.

To the elementary-school course of that period there have been added—in response to public demand—commonly, elementary algebra or geometry, vocal music (as a branch of study), drawing, nature-study, manual training, and civics, with some broadening of the work in English. This addition looks quite formidable but it should be remembered that the *length of the school year has been increased,* and some important eliminations have been made from the prescribed work of the old course.

Much time and energy are saved to the pupils of the present by the omission of some parts of the arithmetic, geography, and history, especially, as not demanded by present conditions.

In the former branch numerous cases are now commonly left out—notably bank discount, compound interest, the progressions, and others; and in several cases, such for example as partial payments, equation of payments, and denominate numbers, the longer and more perplexing problems are now usually omitted or not positively required. Most of this curtailment of work is justified on the ground that it has not now a practical application to life's duties, and that its culture value is obtained from the algebra and geometry. The long and tedious course in arithmetic is thus relieved with no real loss.

From the old-time course in geography, with its taxing lists of facts and names of mountains, rivers, and cities, especially in foreign countries, and its large body of encyclopaedic information, liberal omissions are now common. There is also great saving here by use of late improved methods, one of the most marked being the representation of statistical information by tinted maps and by colored discs and charts calculated to give a vivid, instantaneous impression which formerly required much reading and reflection to fix in the memory.

The present course in United States history contributes largely to the relief by putting much of its information into statistical form for easy reference, and to lighten the burden of the memory; by omitting hundreds of unimportant dates from the lessons, and by leaving out all lengthy descriptions of battles except a few of the most important. It seems to me that much time is also saved to the pupil by the superior putting of things in our modern texts in history. Child-study has taught us that we may greatly increase the pupil's capacity for getting, retaining, and using information by securing his interest. This we do by arousing and holding his attention. Acting on this principle, modern textbook writers have succeeded in presenting the drama of American history to the child's liking. One simple device which has attracted general notice is the arrangement of the salient facts of each period of our history with some great hero or patriot as the center. Children are naturally hero-worshipers and this arrangement gives to the whole body of historic facts of his time something of the enchantment possessed by the great central figure.

I believe that much time and energy are saved to the pupil by present methods in the teaching of reading—coupled with the fact that almost all children now have access to an abundance of good books. These conditions make it possible for most pupils to become rapid readers and quick to grasp the thought from the printed page. Since most of the branches are gotten by reading, it is easy to see of what vast consequence good reading is to the school life of the pupil.

It is the opinion of many teachers of large and successful experience that the time spent on such educational drills as vocal music, drawing, nature-study, and most of manual training does not prevent the old time development in the essential branches, but its being interspersed with them forms recreation periods and thus fits the pupils for more effective

work on these heavier branches. As the recess period is to the body so is the bright, spirited drill to the mind.

In the high-school curriculum there is little suggestion of crowding, as the number of branches has not been increased in the ratio of the expansion in the number and length of courses. Besides, the work has been lightened by pushing civics and elementary algebra or geometry into the eighth grade and by omitting certain branches of science—commonly physiology, geology, and astronomy. True biology has been added, but it serves so well as an introduction to botany and zoölogy that it hardly requires the time and effort of an additional branch. Manual training and the commercial branches have also come in, but much of the former serves the same purpose here as in the elementary schools, and the small time it consumes is neutralized by its resting and stimulating effect upon the pupils. The remainder of manual-training work and all the commercial branches take their places, usually, in special courses and do not add to the work of the others.

The principal addition to the general high-school curriculum is in the extension of such courses as history, English, and mathematics; but the extension of a branch is usually not so taxing to the pupils as the addition of a new one.

There seems good ground for belief that with our present large measure of the laboratory method applied to the sciences we fail to get as much clear, tangible, and satisfying knowledge, in a given time, as was done in the old way. It is possible that this method, in the hands of teachers of small experience, so fills the mind with minute details that comprehensive views of the science are not grasped; that pupils finish their study of a science with vague memories of myriads of fragments of truth but no clear vision of a body of related, essential, scientific knowledge.

But, on the whole, I believe it is safe to conclude that the measure of student effort necessary for success in the high school is not now greater than it was half a century ago; that the curriculum is richer, better adapted to the needs of the masses, and thus more popular and useful.

The two principal evils which would result from the overcrowding of the curriculum are injury to the health of pupils and lack of such mastery of the branches as gives efficiency and encouragement. These have ever menaced all school work, and it seems to me we have not sufficient evidence that they are *generally* caused by the fulness of the curriculum nor that they are relatively on the increase. We grant that the curriculum should not be allowed to outgrow the capacities of a majority of the pupils, yet we should not lose sight of the fact that much of it should be only suggestive, should simply open the doors to departments of art and contemplation and research which invite to unlimited occupation and growth.

If it is true, as many critics insist, that the modern high school produces a smaller relative percentage of pupils who have such a thorough knowledge of the branches as gives power and independence in their use; that its product is immature, shallow, and unpractical, may it not also be true that the cause is not so much with the curriculum as in the environment? Are there not social and domestic reasons why our boys and girls are lacking in high ideals of industry, pluck, and power? Have our critics compared our modern home, with its exemption from child responsibility, to that of our fathers where each had his daily round of duty, and have they philosophized on the effect of this change upon the characters of the children? Have they carefully compared the work, the real pleasure and the inspiration of the old-time literary and debating societies with the frothy and giddy fraternities of today, and pondered on the differences in the logical results of these changes? These are only suggestive of conditions in our modern social life which surely are largely responsible for the lack of faithfulness to duty and responsibility which is the most distressing condition in the high school of today. For these conditions which seem unfortunate the schools have the smaller share of blame, but are not wholly exempt. If the school had not shirked its responsibility to its literary societies the fraternities would not have been so much in demand. The social life of the country is largely responsible

and to it we must look for the greater work of restoration, but the schools have a duty here which they can ill afford to neglect. The home realizes that the school is failing of highest results but does not see the real cause. The school sees the true condition, knows the reason, and is in position to suggest the remedy.

While we should be alert to know and meet all just criticisms of the product of the schools, we should not be too easily moved by them. Such criticisms have always existed, and there never was a time when social and commercial life were making such heavy demands on the schools as in this opening decade of the twentieth century.

We may not easily show that our pupils are better prepared for college than were their parents, but there seems good ground for a substantial belief that they are better equipped for living under the conditions which now exist; and this preparation is the larger duty of the public schools.

C. CITY SUPERINTENDENTS OF LARGER CITIES

TOPIC—THE NEED FOR SPECIAL CLASSES

IS THERE NEED FOR INDUSTRIAL SCHOOLS FOR PUPILS UNLIKELY TO COMPLETE THE REGULAR ELEMENTARY-SCHOOL COURSE AND GO ON TO THE HIGH SCHOOL? SHOULD IT PROVIDE TRADE INSTRUCTION?

I. L. D. HARVEY, SUPERINTENDENT OF SCHOOLS, MENOMONIE, WIS.

Before attempting to discuss this question it will be well to state the conditions of the problem. In every city of any considerable size there are a large number of children who do not complete the course of study in the elementary schools, but who, for one reason or another, leave the schools at an age when they should still continue to receive instruction adapted to their needs and capacities.

The recent report of the Massachusetts commission appointed by the governor to investigate this subject, disclosed the fact that there were twenty-five thousand children in that state between the ages of fourteen and sixteen who were not in the public or private schools, and that if they were employed in any gainful occupation it was of the lowest class of unskilled labor, commanding a very low rate of wages, and with little or no prospect for advancement to a higher and better-paid class of labor.

Observation in almost any city will disclose conditions similar to those found to exist in that state. These children have left the public schools for a variety of reasons. In some cases it is the result of necessity—the low wage-earning capacity of the parents, their improvident habits, or the size of the family may make it imperative that these children shall add their mite for the support of themselves and the other members of the family. For that reason they are withdrawn from school at an early age when an opportunity is open for earning even a small pittance per week. Others have left the schools because of indifference, either on their part or on the part of their parents. They are not nterested in the work of the schools; they have no comprehension of the value of an education; the immediate opportunity to earn even a few dollars a month appeals to them with greater force than do the problematical benefits of further schooling. In many cases this indifference is due to the fact that the character of work in the elementary schools, making as it does little or no demand on the motor activities of the child, does not appeal to them. They see no value in it as measured by their standard, and they withdraw from the schools frequently when there is no necessity for it and when they do not engage in any productive labor. Many of them, who do secure employment, enter upon it under conditions which are the worst possible, both for the moral and physical development of the child. From this class a large number of the recruits come for our charitable and penal institutions later on. Such a class, lacking in opportunity, hope, and aspiration, in an environment most depressing, is a menace to society and to the state. There will

always be such a class, but the question which interests those who are concerned with the welfare of society is—How large shall this class be?

Looked at from the industrial standpoint, what are the conditions? The old apprenticeship system is rapidly disappearing, and even where it is still in operation, manufacturers do not want apprentices under sixteen to eighteen years of age. There are few opportunities today for a young person to learn a trade in its entirety, under conditions at all favorable, and for the boy under sixteen years of age there are no opportunities. The minute division of labor which has accompanied the development of our manufacturing industries has eliminated many of the trades which, earlier in the industrial development of the country, were a necessity. What was formerly done by one individual is now the work of many individuals and complicated machinery. While this has reduced the necessity for the continuance of the old apprenticeship system, it has introduced a class of labor in which the individual is trained to do but a single thing and which does not demand the wide range of mental activity and development necessary under the older system, nor does it secure the power of initiative on the part of the operative. While the division of labor which has accompanied the development of our manufacturing industries has resulted in cheaper production, it is coming to be recognized by manufacturers generally that cheapness is not the only essential element in the command of the markets of the world. Quality as well as cheapness is an essential, and quality demands intelligent labor —intelligence which goes beyond the mere manipulation necessary in a single process; an intelligence which comprehends the relations between processes, and between processes and material; an intelligence which makes it possible for the individual to adapt himself to new conditions and to be an effective economic unit under whatever conditions he may be placed.

Manufacturers complain that there is a dearth of men whose training has been sufficiently broad in a particular line of work in which they are engaged to fit them as foremen and department superintendents, and they are demanding that some means shall be provided to prepare young men more adequately for effectiveness in the industrial field. Manufacturers and men of affairs are awakening to the conditions which exist in some of the other countries of the world, especially in Germany, due to the establishment of numerous trade and technical schools, and are recognizing that our educational system makes no adequate provision for giving such training, and that with the going-out of the apprenticeship system nothing has been provided to take its place. They have noted the marvelous strides Germany has made in recent years in the industrial world, and have studied the reasons and have found them not in the advantages which Germany possesses in raw material, in means of transportation, or in other of the material things which we possess to a degree far in excess of any other country in the world, but in the development of the educational system of Germany on technical and industrial lines, and they are demanding a modification of our educational system on similar lines.

In recent years educators have been studying this problem and a marked change is evident in their view of the inadequacy of our present educational system. They are coming to recognize that the fundamental thing in educational effort is to develop the capacity to earn a livelihood. Because further development along cultural or other lines is conditioned by the capacity of the individual to support himself, they are recognizing that this demands the introduction of industrial education in training young people to do something with their hands, as well as to know something of what other people have thought and done.

The statement of conditions as thus set forth would seem to make imperative the necessity for the establishment of schools in our cities, whose prime purpose shall be to fit boys and girls between the ages of fourteen and sixteen to earn a living; not to take the place of existing schools, but to furnish an opportunity for the large number of children who do not remain in the schools and who would avail themselves of this opportunity if it were afforded, to begin the mastery of some trade and to enable them to secure employ-

ment at a higher wage and with greater opportunities for advancement than is possible under existing conditions.

The report of the Massachusetts commission shows that the parents of at least 45 per cent. of the children between the ages of fourteen and sixteen who withdraw from the public schools would keep them in schools of this class if they were provided, instead of allowing them to roam the streets or to engage in the low grade of unskilled labor which alone is open to them; and that the parents of 76 per cent. of these children are able to keep them in such schools. From the standpoint of the boy and girl, from the standpoint of the manufacturer, and from that of society itself, such a system of schools seems a necessity.

In years past there has been some question as to the right, or as to the wisdom, of a policy of providing schools at public expense, whose avowed purpose was to fit the individual to earn a living. Public sentiment upon that question has materially changed in recent years. State institutions are maintained by public taxation, furnishing just this class of instruction on the higher levels of industrial effort. An examination of the right of the state to maintain a public-school system fails to disclose any reason why such a system should be so constituted as to bar what is necessary training for the earning of a livelihood in a particular direction, and instead, to offer what is regarded by some as a possible, but which generally proves to be an inadequate, preparation for earning a livelihood in any direction. Briefly stated, the state has a right to do whatever is necessary for its well-being and perpetuity; good citizenship is essential for such well-being and perpetuity; the fundamental factor of good citizenship is a trained intelligence which enables the individual to support himself and those dependent upon him; a school which provides such training and sends out individuals so trained may be supported legitimately by public funds. If a large number of the children of any given community are not having opportunities furnished for the training which enables them to meet this necessity, then the state is failing in its duty to itself.

At the outset it may be necessary for public-spirited citizens to provide the funds for the establishment of industrial schools wherein can be demonstrated the value of industrial education. Although in a number of states public sentiment is sufficiently advanced to have secured legislation providing for public support of such schools, in localities where such sentiment does not already exist, private initiative must furnish the object-lesson out of which an enlightened public sentiment shall grow.

For the class of children under consideration, the trade school is unquestionably the kind of school needed—the school in which the individual shall be made master or shall make considerable progress in the mastery of some occupation in which there is a demand for his services. The work should not be exclusively hand work, but should be associated with such related academic work as will be of the greatest value to the individual.

It may be felt that there is some danger in the establishment of such schools that they will have a tendency to draw away from the public schools, at an early age, children who, under existing conditions, would remain in them longer. The children who would thus be drawn away are in the main those who will find their life-work in some phase of industrial effort. For this class of children there must be provided opportunities farther along in which they can prepare themselves for the still higher forms of industrial activity. With such schools provided, there would be little inducement for children to leave the public schools who otherwise would remain in them and who see, farther on, opportunities for specific industrial training in various fields.

The introduction of manual training, looking distinctively toward the industrial lines of development, if made a part of the elementary course of instruction in the cities, would undoubtedly awaken an interest which would hold many pupils in school longer than they now remain. It would give them a general training which would make them more efficient in the specific work of a trade school, and if carried on through the high school would lay the foundations for a much broader and more effective industrial training than is now

possible. It would develop the artistic sense so lacking in the manufacturing field in this country today. It would give a breadth of mental training not now secured by the public schools which confine their efforts to the study of books alone.

A practical question in the development of trade schools may arise which should receive consideration. By some it is feared that such a movement would be opposed by the labor unions. Even the introduction of manual training has been opposed in some cities by such organizations. I do not believe that the best elements in organized labor are opposed either to manual training or to the establishment of trade schools. A considerable number of the most prominent labor leaders have already committed themselves as favorable to the establishment of trade schools. They know that the higher the grade of intelligence and the greater the efficiency of the workman, the stronger the position of organized labor. The leaders in this movement whose influence is not the mere momentary influence of the demagogue but the outgrowth of intelligence and wisdom, recognize that the interests of the laborer are closely bound up with the interests of the manufacturer, and that whatever can be done to dignify labor and to make it more effective is the course of wisdom for both the employer and the employé. It is the sons and daughters of the rank and file in the army of labor who are to be benefited personally by the establishment of this class of schools.

The purpose and place of these schools in the educational system must be made clear. The manufacturer, the public-spirited citizen, the educator, the labor leader, and the rank and file of labor must come together for the discussion of this subject. Those who are advocating it must be prepared to present a definite, well-organized plan to show to all who are interested that the aim is the bettering of conditions for both employer and employé. When once there is a common ground of understanding, all opposition will disappear, and the trade school will be a strong bond of mutual interest between the laborer and the manufacturer.

II. F. B. DYER, SUPERINTENDENT CITY SCHOOLS, CINCINNATI

The problem stated.—Children are usually released from compulsory school attendance at fourteen. Many drop out sooner unless there is a vigilant "attendance department." Careful investigation shows that in large cities more than one-half of our youth avail themselves of the privilege in their fifteenth year, or almost immediately. Probably one-half of these do not get beyond the fifth grade. This means that one-fourth of our people are practically illiterate, receiving only the education that normal children have at ten years of age.

The following statistics are given as a basis for the above statement:

The number of children present on the 21st of February, in a large city, with their age at their last birthday, was as follows: 12 years old, 3,605; 13 years old, 3,191; 14 years old, 2,029; 15 years old, 1,089. The number 15 years of age were 34 per cent. of the number 13 years of age. Nearly two-thirds of our pupils leave school in their fifteenth year.

On the same date the clerk of the Attendance Department looked up the record of the last hundred boys and the last hundred girls, under 15 years of age, who had applied for certificates to work.

Of those who stopped school at 14 or very shortly thereafter—

2	per	cent.	of	the	boys	and	2	per	cent.	of	the	girls	were	in	the	3d grade
19	"	"	"	"	"	"	15	"	"	"	"	"	"	"	"	4th "
28	"	"	"	"	"	"	37	"	"	"	"	"	"	"	"	5th "
29	"	"	"	"	"	"	20	"	"	"	"	"	"	"	"	6th "
10	"	"	"	"	"	"	16	"	"	"	"	"	"	"	"	7th "
10	"	"	"	"	"	"	8	"	"	"	"	"	"	"	"	8th "
2	"	"	"	"	"	"	2	"	"	"	"	"	"	"	"	High School

It will be seen that over 50 per cent. of those who stopped at 14, got no farther than the 5th grade, and 25 per cent. more reached only the 6th grade.

The reasons for stopping may be classified under two heads: necessity and inclination, and the latter is probably more general and fundamental than the former; for when the inclination to stop is strong, the necessity can readily be demonstrated.

Whether these statistics are representative or not (and I believe they are), all will concede that our great cities are permitting to develop a large proletariat whose rule is king mob. Many of these youths take minor positions, which they soon outgrow; but they get no farther, for they are fitted for nothing better. There is danger of their becoming loafers at 18, and criminals at 20. If they go into the factories they are likely to make poor, incompetent workmen; the modern factory system scarcely allows of apprentices, and in the few remaining trades such apprentices are neglected, and the quality of the work degenerates. An industrial system that is largely recruited from the illiterate and incompetent, with no means of self-improvement, will not long be able to compete with the systems of other countries, whose rank and file are skilled and intelligent artisans, elaborately trained in the theory and practice of their special vocations.

Something may be done in our present school system to remove the *inclination* of youth to leave, by the introduction of manual courses that will make it seem to them worth while to continue. Something may be done for backward children, as will be brought out in another topic on this program, but the problem will remain: What can be done for the great number of illiterate and inefficient youth who are scarcely touched by our educational system?

Evening school as a method of solution.—The evening schools are doing something, and in the expansion of their work lies the readiest method of attacking the problem. Above all others, the teachers of our evening schools should be chosen for their sympathy, enthusiasm, and teaching ability, from the most capable people available. Enough teachers should be clustered at a center to permit a fairly close classification of students. A continuous course should be offered in the essentials from the sixth elementary grade through the four years of high school. The latter course should be sufficient to admit to professional schools. This has been accomplished in some cities in a way more or less satisfactory, usually the latter. Attendance is irregular and capricious, depending upon the magnetism of the teacher.

But the larger number of youths do not respond at all to such instruction. In many instances they have left school to escape it. They are at work in factories and business houses. The only thing that appeals to them is help in their immediate and imminent needs. They do not care to read, unless it is in close relation to what they do; to study mathematics, unless it applies closely to their vocation; to attend to civic instruction unless it has a bearing upon their own civic and business relations. What they do care for is an industrial course consisting of the principles of industrial work and industrial art, and their practical application, leading up and finally applied to their own vocation. The same with suitable modifications may be said of commercial instruction.

The evening school at best is a mixed blessing. The child of 14 who works all day, probably beyond his strength, is often not in fit condition for prolonged mental effort at night. The time is too meager to accomplish much. Capable instructors in technical subjects outside of usual school teaching are hard to find. The conventional schoolroom is not a suitable laboratory, and cities are not frantic to equip special buildings for night use only. Especially will such a system be very imperfect so long as attendance is optional with the student and unsupported by the state.

In spite of these objections, however, I believe that every large city should give immediate attention to the expansion of the evening school, and the differentiation and development of its industrial, commercial, domestic, and general course, in a manner not yet attempted in any American state. Out of this will almost certainly evolve and arise an industrial and trade-school system such as the needs demand. The rapid increase of manual-training high schools prepares the way.

The evolution of industrial schools in other countries.—The evolution of a system of

industrial education may be studied in almost any state of northern Europe. In Baden, for example, children may go to work at the age of 14, but must *continue* their schooling until 16, when they must enter a trade school in which they are engaged in industrial occupations.

The continuation schools were at first evening schools, somewhat like our own, but many of them developed later into industrial evening schools. Some of these were opened during the day, and employers released their boys for certain hours to attend them. The employers soon found it preferable to take boys who had completed their preliminary training, and many of the continuation schools became general industrial day schools.

Trade schools have existed there for generations, supported by trade organizations, as the guilds have ever been solicitous for their apprentices and ambitious to improve their skill and ability, and thus increase the prestige of their guild. But with the rise of modern industries and the development of industrial continuation schools, the trade schools multiplied everywhere, taking the youth after their general industrial education and fitting them for their special vocations. As the need for such schools was shown, the city supported them, and the state granted one-half the running expenses. With this aid most of the trade schools and many of the general industrial elementary schools became day as well as evening schools, and a state school for training teachers for those special schools was established.

Five years ago Baden, with the population of Chicago, supported 200 evening schools, of which 96 were general industrial schools, 28 were primary commercial schools, 36 were domestic science schools, and the others general continuation schools. Forty-six industrial schools were also day schools. These schools prepare the way for the trade schools, which are open to those who are 16. Every city must have at least one continuation school, and every boy must attend either an industrial or commercial continuation school (either day or evening) for two years after completing the common-school course, unless he goes on to the higher schools.

General industrial schools necessary.—From a study of foreign systems it appears that general industrial schools should be opened in our cities. These should admit pupils 14 years of age upon very easy terms as regards scholarship.

Those who have not completed their elementary schooling (who, you will remember, will constitute three-fourths of the attendance) should continue in the most essential studies, but their promotion should depend almost wholly upon their advancement in industrial work. Attendance, either in day or evening schools, should be compulsory until 16, except as excused by central authority. (I believe this is now the law in New York.)

Trade organizations should agitate the opening of trade schools, to specialize the work of the student after 16. They should take the initiative and, I believe will, if it is properly brought to their attention. The trade school in some form will come shortly to every city. The whole country is looking with interest upon the experiment in public trade schools just begun in Philadelphia, and to the outcome of the report of the Connecticut commission, recommending the opening of a general elementary industrial school in every city, one-half of the support to be given by the state. A similar report in Massachusetts is awaiting action. A National Society for the Promotion of Industrial Education is at work. The President of the United States has sent a message to Congress upon the subject. Recent consular reports show conclusively that the prestige of American industries will rapidly decline unless our educational systems are expanded. Our doctrinaires who decry the education of youth to make a living have long held the field, but perhaps they have not seen the whole truth. It is possible that there may be some culture and much character-building in a serious training to earn an honest livelihood. Better for the submerged half of our youth an education that will produce intelligent and competent artisans than no education.

AT WHAT SHOULD THE UNGRADED SCHOOL AIM AND FOR WHAT CLASS OF PUPILS SHOULD IT PROVIDE?

C. R. FRAZIER, SUPERINTENDENT OF SCHOOLS, WINONA, MINNESOTA

The insane asylum, the prison, the schools for the blind, the deaf, and the feeble minded are institutions which have grown out of the needs of society in caring for its abnormal members. The state has provided, equipped, and maintained these institutions generously, but while this has been doing, society has been intent upon a study of the causes of these abnormalities and the means of reducing their number, and if possible' preventing them altogether. Important and necessary as are these corrective agencies, no one questions the greater importance of preventive measures such as will reduce the tendency to the abnormal and give positive direction along the lines of normal development, thus giving to society as a valuable asset that which would otherwise become a public charge and a menace.

There are in the schools and among the school population of every city, irregular, backward, incompetent, and incorrigible children. They are the abnormal elements of the school. The parental school, the special disciplinary school, and the ungraded room are the agencies that have been provided to correct these abnormal tendencies, and it is perhaps well enough to inquire what measures are being taken to *prevent development* of these special cases which are so difficult to deal with. Except where ungraded schools have been allowed to become mere disciplinary schools, they have aimed to take care temporarily of (1) foreign children of some maturity, but unacquainted with the English language; (2) those who have attended an ungraded rural school and have advanced unevenly in their studies; (3) those who because of irregular attendance or physical deficiency have fallen behind their grade, and finally (4) those who because of failure, due to discouragement and lack of ambition, need special individual attention. The number of those who fall into the first and second classes is small in most communities; the number of those who fall into the third class is larger, and the number of those who fall into the fourth class is still larger. The cases arising under numbers one, two, or three are probably not preventable. In most cases those falling under number four are preventable, but the same measures which are preventive for the discouraged or unambitious class will be corrective for the pupils of the first three classes, i. e., those who are irregular thru no fault of their own.

If we shall bend our energies toward reducing the number of pupils per teacher and toward arranging programs which give time for individual instruction and supervision of study, we can, in most communities, at least, relieve ourselves of the necessity of establishing and maintaining ungraded classes. The mass teaching of the modern school results in the teacher losing sight, until too late, of the peculiar difficulties of the individual child. A few days of failure and neglect leaves him in an indifferent and perhaps hopeless attitude. The tedious process of long-drawn-out torture often administered to an embarrassed pupil who is much more conscious of the scrutinizing attention of the teacher and classmates than he is of his own powers of thought, causes him to suffer agonies of embarrassment and perhaps humiliation, and the remainder of the class to become disgusted with the waste of time involved in trying to teach an individual something that *they* already understand. It is undoubtedly true that in just such ways as this many pupils are lost to the normal development of which they are capable and soon become abnormal charges upon the school and the home.

In some good schools the special-help hour at the close of the day, in other good schools the special help of a second teacher provided for this purpose, and in many schools, one form and another of special provision for individual help and supervision of study has been provided, but this is not at all general. Every school program for the middle and upper grades should make adequate provision for individual instruction and supervision of study. It has been found an excellent plan in some rooms to reduce the number of

class recitations by half, the pupils spending the time thus saved to the teacher in study under her supervision. Much of the individual instruction and testing is thus done during the study period, leaving the recitation time for the consideration and development of the main issues involved in the lesson. The study period in one subject may alternate with the recitation period on the same day, or an entire day may be given up to study except as broken by lessons in writing, drawing, music, etc., the next day being given up to recitations. In either case, the teacher not only has an opportunity to furnish a little help or stimulus at the initial point of difficulty, but she has a grand opportunity for teaching pupils how to study, thus gaining power over subject-matter and control over themselves, which keeps them in the line of normal development. Under this system the number of delinquents is reduced to the minimum. Pupils become conscious of power, and teachers feel that composure and poise which come from a knowledge that they now have time to do the thing which they had always wished to do but could not.

The writer has greater confidence in such arrangements as shall give the teacher an opportunity to give to special cases the attention which they need in the regular schoolroom, than he has in the special schools for special classes. When adequate provision is made for individual instruction and attention, either upon any of the plans suggested above or by other means or devices, it is believed that there will be very little need for the ungraded school, and less need than at present for the disciplinary or parental school. The positive thing done at the right time is much better than the corrective thing done when compelled by necessity.

In Winona an ungraded school was maintained for two years with a special teacher and with manual-training equipment, but the school soon came to be known as the truant school, the bad boys' school, etc., and the stigma attached to membership therein neutralized its usefulness and led the school authorities to discontinue it, a policy in which principals and teachers concurred. It was decided that these special cases would better be taken care of in the regular schoolrooms. This latter policy has been persisted in for four years with results which we think justify its continuance in our particular community.

Correspondence with superintendents in different educational centers develops the fact that other communities have had a similar unfavorable experience with ungraded schools. One city which maintains at the present time both truant schools and ungraded schools, but keeps them distinct and separate, nevertheless finds pupils and parents regarding the ungraded school as odious and the superintendent of these schools expresses himself as dissatisfied with the results of the experiment with the ungraded school. On the other hand, several superintendents of important school systems report ungraded schools working well and still more express their intention of establishing such schools soon.

Even when every effort is made to prevent irregularities in the development of pupils and after every possibility for providing individual attention in the regular schools has been exhausted, there still *may* exist in some communities a need for the special ungraded schools. Granted that such schools are needed, it will require no argument to establish the aim of such a school as being simply and solely to care for the intellectual needs of pupils, who, for one cause or another aside from conduct, are unable to classify with regular classes. If the ungraded room undertakes to become a reformatory for incorrigibles and truants, or even if it is allowed to get the name of being such an institution, the very aim and purpose for which it is instituted must necessarily be defeated, for a child or a parent with even a small degree of pride will resent such a classification; it comes to smack too much of reformatory and prison. It would seem, then, to be clear that the aim should be to take care only of those whose failure has been intellectual rather than moral and to avoid scrupulously the sending of pupils into these classes whose reputations with their fellows is bad from the standpoint of conduct. Teachers recommending pupils for assignment to the ungraded room should avoid giving the impression that such an assignment is disgraceful in any way. The teacher of the ungraded room should be a

man or woman of attractive personality, versatile in devices, whole-souled, and optimistic. He should have good insight into child nature and be skilful at diagnosing cases sent him and able to base his treatment of a case upon an intelligent understanding of it.

He must not be expected to deal with large numbers as his instruction is, in the very nature of the case, individual; probably fifteen pupils are as many as any one teacher should attempt to handle at a time. He should assume and have his pupils feel that they are there temporarily for a special effort in which they are to have the help and sympathy of a competent teacher. While to some few he may have to play the rôle of taskmaster because they are unable to understand any higher language, for the most part, he will be the skilful and inspiring helper, desiring to co-operate in every way with the pupil for the accomplishment of a recognized purpose.

Another aim of the ungraded school, perfectly consistent and with the advantage of being positive, is to enable pupils who have the capacity, the health, and maturity, to do some special study under direction, make up a grade, and pass into a higher class. The bright child has his natural rights as well as the slower child, and that often means the right of advancing a grade ahead of his class, but there is danger in the so-called "skipping" of grades. The ungraded school enables the bright child, in a short time, to master the essentials in the work between his class and the next one instead of skipping them. Allowing pupils of this kind who are well known to be strong in scholarship to have membership in the ungraded school will do more than anything else to remove the curse of belonging to the ungraded school. It becomes a place for the bright and the dull student alike. If the ungraded room can come to have the name of being in existence for the purpose of giving special opportunity to the forward and backward pupil alike, and if it can be kept disassociated in the minds of pupils and parents from anything in the nature of a reformatory, it can no doubt be made a blessing to many communities. Nevertheless the advisability of establishing and maintaining ungraded rooms in any system of schools should not be conceded until every possible effort to render them unnecessary has been exhausted.

DISCUSSION

W. L. Stevens, superintendent of schools, Lincoln, Neb.—1. *The aim.*—For the most part public provision for backward children is institutional in character. This plan is defective because many of these children cannot or should not be removed from home. Competition and companionship are as valuable to these children as to normal children. Institutionalism may prevent progress or produce degeneracy, leading to the almshouse or the prison. The aim, therefore, of the ungraded class should be to make out of the backward child a self-supporting member of society. It is not a question of inculcating educational facts but of getting an educational grasp of the child.

A secondary aim is to relieve the regular class teacher of certain classes of pupils whose presence in the room demands an undue amount of the teacher's time and strength.

2. *The pupils for which the ungraded room should provide.*—1. Defective children: those who can profit little from the ordinary methods of instruction. *Learning thru the senses. Learn to do by doing.*

2. Backward children: those who have entered school several years later than usual, or those who are dull but who can profit by the usual methods provided they are given more time and much individual attention. *Manual training.*

3. Disciplinary classes for those who are seemingly incorrigible, whose presence in the ordinary classroom makes teaching difficult and even impossible. *Essential subjects. Military drill.*

4. Foreign children, who need instruction in language to make classroom work intelligible. Lincoln's *best field children.*

3. *The need of specially trained teachers, and of expert medical inspection.* The abnormal child responds readily to proper stimuli when placed in congenial and well-

regulated environment and will develop toward true and self-controlled manhood and womanhood.

4. *Results.*

Henry P. Emerson, superintendent of schools, Buffalo, N. Y.—I wish to say a few words relative to the opposition to technical education on the part of labor unions, and the best practical way of dealing with such opposition. Buffalo is a rather conservative city, and up to twelve years ago had done absolutely nothing in the way of manual or any special training in the public schools. Since 1895, however, manual training has been gradually extended and perfected in the grades. Three years ago the nucleus of an advance school for technical training was begun in a grammar-school building which was no longer needed for elementary work. About two months ago I recommended that the city make provision of a new building for the technical high school. This precipitated a discussion of the whole question and brought out whatever opposition existed to technical education. At a public hearing several men who professed to represent organized labor opposed the recommendation on the ground that the school was designed to produce strike-breakers and was favored by manufacturers for this reason. Thereupon, the principal of the school invited some of the most influential of the so-called labor leaders to visit the school and make themselves familiar with its work and aims. They were induced to remain long enough and to make the inspection thoro enough to understand what was going on. The result was that most of the visitors confessed that they had entertained unwarranted opinions about the school. In short, they were converted, and as a result of their change of heart the United Trades and Labor Council officially indorsed the proposition to erect and equip a new building for the school. I have related this bit of actual history in order to show that it is often better to get into touch with opponents of our plans and reason with them rather than to keep at a distance and hurl philippics against them.

Clarence F. Carroll, superintendent of schools, Rochester, N. Y.—The question presented by Mr. Frazier calls for a discussion of the interests of the individual pupil. Theoretically we class pupils as precocious, normal, slow, backward, and defective. As a matter of fact these divisions are for the most part imaginary and one class passes by insensible gradations into another. At some point every child is an abnormal child, and needs especial assistance and direction at a given point. If this principle were generally accepted we should be more careful to study each child and to have at hand a diagnosis that would assist us in directing his interests.

The various suggestions that have been made for the treatment of the slow, the backward, and the defective all have their practical bearing and value. Every item of suggestion may be carried into practical effect at some point. For example, a teacher should always be willing to assist a child in need of such assistance out of school hours. She should have in mind the particular and probable need of such a child at all times. She should instinctively, by the unerring instinct of her sex, watch his recitation and his study, and provide the needed assistance at the critical moment.

On the other hand it is to my mind a mistake to prescribe as a cure for all evils the "after-school" theory. Just as serious a mistake would it be to prescribe what has been exploited as the "individual" method of assisting the slow pupil. As a system either of these is insufficient and will break down in practice.

As a matter of fact the individual may be reached and often is by an expert teacher quite as effectively in the class recitation as by the so-called "individual" method. Such a skilled teacher will so direct her questions, so present the elements of the recitation in concrete form that even the slowest child may at least during a part of each general recitation be stimulated far more successfully than by any individual scheme. A skilled teacher will thus accomplish wonders with the slowest pupil and promote every member of her class. This fact may be studied most effectively in the work of the successful teacher in the first grade where practically she never fails to advance every child.

In addition to these various so-called schemes of reaching the individual we must of course provide special classes, which is only another way of grouping pupils according to their need and ability and present attainment.

This leads me to say what I most desire to express in connection with this discussion. We should recognize some general principles in connection with this most vital question. For indeed it is of central importance to our system that the lock-step be broken, that the individual be reached, and yet that we preserve enough of unity and organization to make our work economical and effective.

The first of these general principles is in brief that we should ever seek for frequent adjustment. This adjustment should be made in the organization of the schoolroom as a whole. In every schoolroom there should be at least two working groups, and in the lower grades this number may be increased profitably to three or four or more if the school is very large.

There are two advantages patent in the grouping system. One is that the teacher by such a division as the grouping system is enabled to reach successfully practically every pupil in class recitation. Even if at the outset forty or fifty pupils appear to be well graded they quickly and inevitably drift apart and demand variety of treatment by the teacher.

Again on the group plan each pupil has an opportunity for independent, quiet study at his desk, which is likely to be wholly lacking if the pupils recite in mass. There is the added advantage that the nervous strain of the constant attention required in recitation is relieved. This division into groups makes it possible for the easy and natural transfer of pupils from one section to another if they forge ahead or fall behind in their work. Such transfer or adjustment should be frequent and a matter of course if the necessity arises.

Again classes for backward, defective, or non-English-speaking foreigners should be organized temporarily wherever and whenever called for. It may indeed be well to have one or more permanent centers for such pupils in any city or section of a larger city, but we should never wait for the slow-moving process of such possible centers. If a group of a half-dozen such pupils appears in a given building more provision should be made for this group. If for a small school, principals may be asked to give considerable time and attention to these pupils. In the promotions it may be possible to leave a smaller number of pupils in a given room in order that this group may there receive special attention from the teacher in charge. Such a group may be provided for temporarily by a teacher added to the force for this occasion and for a limited time. In other words if the need of this local group is upon our minds and if it is our earnest purpose to provide suitable instruction, we may find a way to accomplish this end, and the superintendent, supervisor, principal, and the teaching force of the building should co-operate in meeting such emergency.

Furthermore, after a recent experience which was my first with the semi-annual promotion, I am ready to recommend most earnestly this theory for general use. If pupils are advanced twice in the year a general adjustment to the needs of all pupils can be much more successfully attained, and the need of the backward can certainly be met more satisfactorily. If a pupil is left behind his mates for an entire year his loss morally and intellectually is almost irreparable. It goes without saying that this loss is minimized materially under the system of semi-annual promotions.

To review briefly: Any theory of dealing with the individual is faulty when it attempts to prescribe definitely a single method to be followed. The time, the place, the school, the child, the teacher, the environment, all these must influence the application of the theory if we are to accomplish results most helpful to the system and to the individual and to the community.

GEORGE A. CHAMBERLAIN, principal, East Division High School, Milwaukee.—Among the reforms recently introduced in the Milwaukee school system is the half-hour-help period at the end of the school day. The attitude of pupils toward this help-hour

depends upon the tact of his teacher and principal. In schools where the "help" phase is emphasized, the pupils do not think of "staying after school."

With regard to the ungraded room, I feel that its reputation will depend upon the teachers. Let the strategic time when several pupils can be helped to gain a grade by the aid of such a room be utilized to start the experiment. Then the attention of the pupils will be directed to the advantage of membership in the ungraded room rather than to any disgrace. The ungraded room will then find a warm welcome among the pupils.

THE SEPARATION OF PHYSICALLY AND MENTALLY DEFECTIVE CHILDREN FROM THE REGULAR SCHOOL

C. G. PEARSE, SUPERINTENDENT OF SCHOOLS, MILWAUKEE, WIS.

I think it will not be denied that children who depart somewhat from the normal or regular type should be kept and taught with normal children so far as is possible without injustice to the children who are normal and without failing to give such instruction as is necessary to those children who depart, either physically or mentally, from the normal. Wherever those children who are somewhat different from the usual normal child can be kept as a part of the school community, wherever they can be educated by the usual methods and under usual conditions, wherever they can learn to maintain themselves and care for themselves in the presence and company of others who are normal, it is most desirable that they shall have the opportunity to do so. But certain children depart so far from the normal through lack of certain of the senses by which education and knowledge of the outside world are acquired, or through lack of the necessary intellectual strength to receive profitably this knowledge from outside by means of the senses and to classify and organize such knowledge, that some separation for certain definite classes seems advisable. This is true not only for the sake of children who are normal and who might be hampered in their progress if the teacher were required at the same time to attempt to care for the children who are not normal, but also for the sake of the non-normal children who under such conditions would fail to receive certain special and skilled instruction which is indispensable to their most favorable development.

Among those children who should certainly be separated thus from normal children for a considerable portion of their earlier school life would be children who are deaf. These children, through their lack of hearing, are unable to acquire the usual knowledge and arts of life through the usual instrumentalities. They must have specially trained and skilful teachers who know their peculiar needs and can minister to them; methods peculiarly adapted to their condition must be used in their instruction—methods which cannot be very well carried on in the presence of classes of normal children without great disturbance to the children who are normal and great embarrassment to the children who are deaf. These facts have been thoroughty established by the experiments which have been made in the conduct of special day schools for deaf children. However, when these children have made considerable progress and have learned to speak and to read the lips of those who speak to them, with sufficient skill, they may, perhaps at the high-school age, be transferred to the usual classes in the high schools and do, in most respects, the work which other students of their age are able to do.

It will be generally agreed, I believe, that children who are blind or whose vision is seriously defective must be taught in different classes or schools, at least for a considerable portion of the time in the earlier years of their school life. These children, as is the case with children who are deaf, require different school appliances, skilled and specially trained teachers, and the use of methods which cannot well be carried on in the presence of the usual classes without disturbance to these classes and embarrassment of the children thus specially afflicted. As the children who lack good vision advance in their studies they may gradually assume their places in the regular school classes—at first for a part and later for most of their school instruction. They will for a long time require special

help in study and in the preparation of their lessons. This must be given by teachers specially trained to teach the blind. But after the earlier years of separate instruction they will gradually acquire the ability to mingle and work with the normal members of the school upon a more and more nearly equal basis.

In some cities schools for crippled children have been established. It may be that for certain classes of crippled children such separate schools are desirable. It is possible that children who are crippled so as to be almost constantly in pain, whose nervous systems are more or less shattered by the sufferings they have endured and do endure day by day, or children who lack even reasonable control of their bodies or their limbs owing to paralysis or similar afflictions, or children whose physical misfortunes are such as to render them unsightly or loathsome in appearance, should be segregated from other children in rooms where special freedom can be allowed them, special appliances if needed can be provided for them, and special help such as they may require can be given. But where children are not seriously crippled, where they are defective only to the extent of an arm or a leg, or have such minor physical misfortunes as do not deprive them of reasonable physical strength and activity, it seems far better that they should remain members of the regular classes. They must, after leaving school, become members of the community, where they will be in competition with and will constantly meet people who are normal. The training they get in school, meeting such pupils in the competition of the classroom and the playground, is a valuable exercise for them in preparing for the work of life. The little courtesies and the consideration which can and ought to be shown them by the other pupils of the school offer, also, excellent training for the children who are normal. For these reasons it seems to me that only the seriously crippled or incapacitated or the unsightly ought, on account of their crippled condition, to be segregated in separate schools.

For the remaining class, those who are mentally defective, the interests both of normal children who would otherwise be kept in their company and the interests of the mentally defective children themselves would require that they be put into special classes where they may have such consideration, such freedom from conventional methods, such special appliances, and such specially skilled and sympathetic teachers as their unfortunate condition requires. It is especially important that these children should have every opportunity for the training of the hands. Often the sluggish or undeveloped intellect may be stimulated or developed through the work of the hands. The peculiar nervousness which these children often show, the perverseness which often characterizes them, when subjected to the usual school methods or conditions may, in a multitude of instances, be avoided by placing them under the care of properly skilled teachers and under proper schoolroom conditions.

It is unfortunately true that many of these mentally defective children cannot be so educated as to become self-directing, self-sustaining members of the community. They may be trained to certain useful arts, to certain habits of industry; they may become useful workers in various lines under wise direction; but great numbers of them will never be able to become self-controlled, self-directing, self-supporting citizens. Special work in these special classes will go far to cultivate in them habits of industry and good conduct, some industrial skill, and finally a good disposition toward the community and toward those with whom they must work and upon whom they must be dependent for direction and suggestion if not for care and support.

THE SEPARATION OF THE INSUBORDINATE AND INCORRIGIBLE CHILDREN FROM THE REGULAR SCHOOL

W. C. MARTINDALE, SUPERINTENDENT OF SCHOOLS, DETROIT, MICH.

Instead of "The Separation of the Insubordinate and Incorrigible Children from the Regular School," my choice of title, if I had had the selection, would have been, "Separating Children from Their Insubordination and Incorrigibility."

Under the head "Duties of Teachers" the *first* rule in the Manual of the Detroit Board of Education reads as follows:

"It shall be the duty of teachers to practice such discipline in their schools as would be exercised by a wise and judicious parent in his family—always firm and vigilant, but prudent."

The traditional policy of the Detroit schools is in line with this conception of the relation between teacher and pupil; and the same spirit, I believe, is manifest in our treatment of the problem of insubordinate and incorrigible children.

The question of the separation of this class of children from the regular school and of their treatment in special schools is a broad one, involving as it does consideration of mental and physical peculiarities and of environment. However, I shall treat the subject largely from the side of administration.

I will say first that the maximum number of children to a teacher in the ordinary schoolroom is at present too large. In our School for the Deaf the average number of pupils to a teacher is five; in our special rooms for backward children it is eleven, and in ungraded rooms, nineteen. The maximum number of seats in an elementary room should not exceed forty, if the average teacher is to know something about individual pupils. With forty pupils established as the maximum number, I can see the teacher with time for an occasional long breath, with time to regain her elasticity, with an opportunity to retain her poise. The incorrigibles and insubordinates—these being but relative terms—have already begun to disappear.

In the second place, teachers should avoid helping to make incorrigibles of average children. A case in point may make this clear. John, six years old, was brought to school by his elder brother, but could not be kept there except by force and had to be sent home. His sister brought him back, but John cried to go home. He would give no reason for his attitude. It seemed impossible to pacify him and he was allowed to go home again. Then his brother and sister told the principal that their mother wanted John to be whipped in order to compel him to remain in school. Finally, after several days, the mother came with John and reiterated the demand that he be whipped. The principal replied that John would be made welcome at school if he came but he added, "I will not whip John." When John heard this he said, "Will you for sure not whip me?" Upon being assured that he would not be whipped, he volunteered the remark that he would come to school, and so he did regularly from that time on. School had been represented to him as a place of punishment and if the teacher had fallen in with this view John might have become incorrigible like some of his older brothers. The principal's action was guided by some knowledge of John's environment.

The importance of physiology and of environment cannot be overestimated in dealing with children who are physically and mentally normal. In dealing with those who for various reasons are unable to profit by ordinary schoolroom instruction, such knowledge is absolutely indispensable. Some children are born into this world so handicapped that they require for their salvation the wisest and the kindest treatment. And yet those who need such treatment most are often least likely to receive it.

In Detroit our aim is to study the environment of each child, and his physical peculiarities and deficiencies receive special consideration.

It is often found that what has appeared to be incorrigibleness in a boy has resulted from causes which a little investigation has served to remove. To illustrate: A boy, fourteen years old, in the eighth grade of an elementary school, had long been a trial to his teachers. One day when the boy had been sent to the principal for disorderly conduct it came out in the course of questioning that being a late riser he frequently left home without breakfast. The result showed that the boy's nervous irritability and tendency to sulks and tantrums were largely due to this cause. For some time he was allowed to go home to relieve his hunger when a recurrence of his trouble seemed imminent,

but he himself was anxious to overcome the difficulty, and with the aid of teachers and parents finally succeeded. Certainly such treatment of the case was preferable to expulsion.

This case is merely cited as a type of so-called insubordination. Eye strain and slight difficulty in hearing are also prolific sources of irritability and teachers should be observant and considerate in discovering and allowing for such slight physical defects in pupils.

That there is a close relation between insubordination and arrested mental development is axiomatic. Before special provision was made for just such cases, it sometimes happened that a child entered school at five or six years of age and remained for two or three years in the same class, without yielding to ordinary educational methods. For this class of children found in the kindergarten and lower elementary grades, special rooms for backward children were established in Detroit some years ago. Insubordination is considered as incident to deficiency. The rooms are not established for the permanent care of cases of arrested development but for the sole purpose of bridging over a certain period in the lives of those children who need individual assistance which cannot be given in regular classrooms.

The Day School for the Deaf is another factor in relieving the regular grade-rooms of a class of pupils, who under ordinary conditions are a great worry to teachers. This school is established under a state law by which the city receives a certain amount from the state for each pupil attending the school. The law extends the same privilege to all school districts establishing schools of at least three pupils.

The time and effort given by a superintendent to secure such laws as the one under which our Day School for the Deaf is organized may seem to some of you a dissipation of energy; it does not seem so to me. We are thus enabled to remove a class of pupils whose position has been heretofore pathetic. Attending the regular schools as they did, they were looked upon by other children as "queer," and many were classed as incorrigible.

This probably seems a tame old story to many of you, but I claim that when those pupils with physical defects have been sifted out, the greater part of the old-time incorrigibles disappear. The teacher now has opportunity to look more carefully after the needs of the remaining pupils and is able to supply the very bright ones, mischievous because of lack of proper employment, with work suited to their needs and abilities. If she happens to have in her room a child ordinarily quite normal, but subject, at intervals, to a volcanic flaming-up of what can only be described as "cussedness," she is able to study his case and to get hold of him through a systematic strengthening of his better impulses.

Although I believe that no child properly trained is incorrigible, I realize that the proper method of training is not always easily discoverable, and that segregation is unavoidable in large city systems.

There remain now to be considered those actually classed as incorrigible and insubordinate. In addition to these, there is an unclassified contingent who, for various reasons, are dissatisfied and ready to avail themselves of the first opportunity which offers relief from the restraint of the schoolroom. This last class includes boys who have left private schools either before or after completing the courses offered there; boys who have gone to work but have not found work so attractive as they had pictured it and have no alternative but to return to school; and boys whose "occupation in the streets" has been terminated by the law and who are compelled to return to school.

To all these boys the regular school routine is dull and uninteresting. They create a problem difficult of solution. They like action and physical activity. Being older than their fellows in the regular classes, they rebel against prevailing methods. Their very natures seem to cry for emancipation from the grind. For this class of pupils we have established, in different elementary schools, seven rooms, known as "Ungraded Schools." With fewer pupils than the regular grade teacher, the teacher of the ungraded

school has more opportunity to study his pupils. The ungraded teacher also has more opportunity to work out his individual ideas in assignment of work.

While manual training is a part of the assignment in the regular grades, in our ungraded schools organized games and manual training are special features. Indeed, methods involving a great deal of physical activity have been found peculiarly serviceable. It is a remarkable fact that boys never play truant when they are on their way to a manual-training "center."

Detroit, I believe, was one of the first cities in this country to establish an ungraded school. This school was in a central location and was for incorrigible and insubordinate pupils. Of the seven now maintained, five are in charge of men; two are in charge of women. Each ungraded school is a "center" for a district comprising adjacent elementary schools. Each district has its own attendance officer. The district attendance officer calls each morning at his "center," turns in his reports of the previous day and receives instructions. Should a boy be absent under circumstances not satisfactory to the teacher, the attendance officer goes at once to the home of the absentee. Very often the boy is in his seat within a few minutes.

A special supervisor is in charge of the Ungraded Schools, Evening Schools, Public Playgrounds, and Vacation Schools. This supervisor also passes upon the necessity for granting working-papers. A state law provides that boys and girls who work in certain public places must be at least sixteen years of age. Boys and girls of fifteen years of age are allowed to work under ordinary conditions. Those from fourteen to fifteen receive working-papers only upon certification by the Supervisor of Ungraded Schools that their services are necessary to the support of the family. Investigation of such cases is made by the district attendance officers.

These details are given to show how closely the Ungraded Department is in touch with the home life of the boys and girls. We have not in Detroit, I believe, the desperate conditions prevailing in some large cities. This is due to constant and long-exerted vigilance. However, we have our problem.

I must add that as insubordination is a relative term, care must be exercised in order that pupils may not be "railroaded" from the regular grades to the ungraded schools, and that when conditions warrant, transfers be made from the ungraded schools back to the regular grades. By returning the delinquents who have become members of these ungraded schools to membership in their home schools, when good conduct and attention to duty warrant a return, the segregation becomes a matter of reform with a premium upon good behavior. The return of a boy is not upon his request nor upon the solicitation of friends vouching for his good conduct, but upon his own showing of good intention. Though I speak of returning a boy to his home school this is not exactly correct, for more often the delinquent is returned to an adjacent school where he has an opportunity to begin his school work anew.

I wish to recur a moment to the matter of holding boys and girls in school through interest and through an appeal to their own felt needs. The problem of making the work of the seventh and eighth grades flexible and interesting enough to secure the willing attendance of those boys and girls who become very restless at this period, has its proper place in this discussion. I cannot go into details, but can only say that some changes and experiments we have tried in the Detroit schools have this purpose in view and that results, so far, in increased attendance and interest, are most encouraging.

Let me sum up briefly then the means which seem most effective in reducing the number of incorrigible and insubordinate pupils in the public schools and in retaining as many as possible through the elementary grades.

1. The number of seats in any one classroom should not exceed forty (40).

2. A thorough physical examination of all pupils should be made as to sight, hearing, adenoid growth, and other physical defects which may be causes of insubordination.

3. The defects discovered should be remedied as far as possible through treatment

4. Backward pupils, deaf pupils, and others who need special methods of instruction should be temporarily or permanently segregated in special rooms of the regular elementary schools.

5. Ungraded schools should be established as suggested in the body of the paper.

6. Manual training and other subjects of study more profitable and interesting than some of those now pursued should be introduced into the elementary grades.

7. For every new subject introduced some subject, now taught, should be curtailed or omitted.

In all of our special departments, as I have already indicated, methods involving muscular activity of pupils play a most important part. Many of the methods which are justified by science have first been discovered by a sympathetic insight. There is as much in knowing children as in scholarship; the blending of the two makes the ideal teacher—that firm and sympathetic guide and companion who has the sixth sense of divination and whose personality pervades and permeates the very air of the school. Such *should* be the teacher of any room; such *must* be the teacher placed in charge of special and ungraded rooms.

DISCUSSION

W. N. Clifford, superintendent of schools, Council Bluffs, Iowa.—In schools, as everywhere else, the good and the bad are mingled together. It is not easy to tell who are really bad, that is bad by purpose or intention, and who are accidentally bad. By accidentally bad, I mean those who thoughtlessly do things which would be wrong in school and not necessarily wrong elsewhere.

Of course, there are some pupils who get into the schools who are not willing to respond readily to the good influences, and who ought to be separated from the rest of the school. By the separation of these pupils into small groups they can be brought more directly under the influence of the teacher and often saved. As a result, in many of the larger cities, and no doubt it will spread to the smaller towns, separate rooms are established for ungraded pupils and pupils who are incorrigible in conduct.

The ungraded or special room for pupils who are behind in their studies ought not in any way to be confused with the rooms that are established for the purpose of correction.

It would be a most excellent plan if in every system of schools it was possible to establish an ungraded room to help the children who have been out of school and are not able to keep up with their class. It is not so necessary in the small town as in the large city to establish the school for the incorrigibles, and it would not be necessary to establish these schools anywhere if the size of the rooms could be reduced to a maximum of thirty pupils with a daily attendance of from twenty to twenty-five. At present forty is maintained as the average assignment to each room and oftentimes the rooms are larger. It would be much to the advantage of the teacher and children if the actual attendance never exceeded twenty-five, and there is no doubt that the patrons will recognize this fact in the coming years.

Nearly all the large cities, like Boston, New York, Philadelphia, Chicago, and others, have the incorrigible school. In one of the recent educational magazines there was printed the report of a school of this kind at Roxbury, Mass. To this school was assigned the very best teacher in the city. Not more than twenty desks were placed in the room, and the actual attendance was about ten or twelve boys. These boys came from different parts of the city. They brought their lunch and stayed in session from nine until about two o'clock. The major part of the time was given to manual training and physical exercises.

One reason why so many children become incorrigible in school is due to the fact that schools are not made interesting and many pupils do not appreciate and enjoy studying. If they could have a variety of employment and the practical application of their

lessons there is no doubt that they would do their work well. They take the regular class instruction something in the same way as Nicholas Nickleby took his sulphur and treacle, but nevertheless they would do the work and learn to enjoy it from the pleasure they would get out of doing the work in the manual-training department.

The establishment of the industrial arts has come slowly in the public schools. All the larger cities have done a good deal along this line, and when the smaller towns realize its importance and provide the money for the establishment of such schools, there will be less trouble about the failure in school work and in attendance and in discipline than now exists.

THE NATIONAL COUNCIL OF EDUCATION

CONSTITUTION

PREAMBLE

The National Council of Education shall have for its object the consideration and discussion of educational questions of general interest and public importance, and the presentation, thru printed reports, of the substance of the discussions and the conclusions formulated. It shall be its object to reach and disseminate correct thinking on educational questions; and, for this purpose, it shall be the aim of the Council, in conducting its discussions, to define and state with accuracy the different views and theories on the subject under consideration, and secondly, to discover and represent fairly the grounds and reasons for each theory or view, so far as to show, as completely as possible, the genesis of opinion on the subject. It shall be the duty of the Council, in pursuance of this object, to encourage from all its members the most careful statement of differences in opinion, together with the completest statement of grounds for the same. It shall further require the careful preservation and presentation of the individual differences of opinion, whenever grounds have been furnished for the same by members of the Council. It shall invite the freest discussion and embody the new suggestions developed by such discussions. Any member making such suggestion or objection may put in writing his view, and the grounds therefor, and furnish the same to the secretary for the records of the Council. It shall prepare, thru its president, an annual report to the National Education Association, setting forth the questions considered by the Council during the previous year, and placing before the Association, in succinct form, the work accomplished. It shall embody in this report a survey of those educational topics which seem to call for any action on the part of the Association. The Council shall appoint, out of its own number, committees representing the several departments of education, and thereby facilitate the exchange of opinion among its members on such special topics as demand the attention of the profession or of the public.

ARTICLE I—MEMBERSHIP

1. The National Council of Education shall consist of sixty members, selected from the membership of the National Education Association. Any member of the Association identified with educational work is eligible to membership in the Council, and, after the first election, such membership shall continue for six years, except as hereinafter provided.

2. In the year 1885 the Board of Directors shall elect eight members—four members for six years, two for four years, and two for two years, and the Council shall elect eight members—five members for six years, two for four years and one for two years; and annually thereafter the Board of Directors shall elect five members and the Council five members, each member, with the exception hereinafter provided for (sec. 5), to serve six years, or until his successor is elected.

3. The annual election of members of the Council shall be held in connection with the annual meetings of the Association. If the Board of Directors shall fail, for any reason, to fill its quota of members annually, the vacancy or vacancies shall be filled by the Council.

4. The term of service of the several members of the Council chosen at the first election shall be arranged by the Executive Committee of the Council.

5. The absence of a member from two consecutive annual meetings of the Council shall be considered equivalent to resignation of membership, and the Council shall fill vacancies caused by absence from the Council as herein defined, as well as vacancies caused by death or resignation, for the unexpired term. All persons who have belonged to the Council shall, on the expiration of their membership, become honorary members, with the privilege of attending its regular sessions and participating in its discussions. No state shall be represented in the Council by more than eight members.

ARTICLE II—QUALIFICATION FOR MEMBERSHIP

All members of the Council shall be either life or active members of the National Education Association.

ARTICLE III—MEETINGS

There shall be a regular annual meeting of the Council held at the same place as the meeting of the National Education Association, and at least two days previous to this meeting. There may be special meetings of the Council, subject to the call of the Executive Committee, but the attendance at these meetings shall be entirely voluntary, A majority of the Council shall constitute a quorum for the transaction of business at any meeting, whether regular or called; but any less number, exceeding eight members, may constitute a quorum for the transaction of business at the regular annual meeting, as defined in this article.

ARTICLE IV—THE WORK OF THE COUNCIL

The Council shall, from time to time, undertake to initiate, conduct, and guide the thoro investigation of important educational questions originating in the Council; also to conduct like investigations originating in the National Education Association, or any of its departments, and requiring the expenditure of funds.

ARTICLE V—THE APPOINTMENT OF SPECIAL COMMITTEES AND EXPERTS

In the appointment of special committees, and in the selection of writers and speakers, it shall be the privilege of the Council to appoint such experts, whether members of the Council or not, as are deemed best qualified to conduct investigations.

ARTICLE VI—OFFICERS

At the annual election of officers in 1904 the president of the Council shall be elected for a term of three years, the vice-president for a term of two years, and the secretary, for a term of one year; and thereafter annually the vacancy caused by the outgoing officers shall be filled by the election of one person for a term of three years.

It shall be the duty of the president of the Council to prepare, with the assistance and approval of the Executive Committee, such a program for the annual meeting as shall realize as fully as practicable the purposes for which the Council was organized and exists.

ARTICLE VII—STANDING COMMITTEES

1. There shall be four standing committees: an Executive Committee, a Committee on Membership, a Committee on Educational Progress, and a Committee on Investigations and Appropriations.

2. The Executive Committee shall be composed of the president of the Council and of three other members, whose terms of office shall be so arranged that one new member may be chosen each year, beginning with the year 1899.

3. It shall be the duty of the Executive Committee to provide an annual program by selecting, whenever feasible subjects for investigation, and appointing committees to conduct such investigations. It shall be the duty of the Executive Committee to carry

out the provisions contained in this constitution referring to volunteer and invited papers. It shall be the duty of the Executive Committee to provide a place on the program for the report on any investigation which may be ordered by the National Educational Association or its departments.

4. The Committee on Membership shall be composed of the president of the Council and six other members, whose terms of office shall be so arranged that two vacancies may be filled every year, beginning with 1899.

5. There shall be appointed annually a committee of one to submit, at the next meeting, a report on "Educational Progress during the Past Year," in which a survey of the important movements and events in education during the preceding year is given. This committee need not be selected from the members of the Council.

6. The Committee on Investigations and Appropriations shall be composed of nine members, whose terms of office shall be so arranged that three vacancies may be filled each year, beginning with 1903. No proposal to appoint a committee to undertake an educational investigation of any kind, and no proposal to ask the Board of Directors of the Association for an appropriation for any purpose, shall be acted upon until such proposal has been referred to this Committee on Investigations and Appropriations for report.

ARTICLE VIII—THE DUTIES OF THE COUNCIL

1. It shall be the duty of the Council to further the objects of the National Education Association, and to use its best efforts to promote the cause of education in general.

2. The meetings of the Council shall be, for the most part, of a "round table" character.

ARTICLE IX—AMENDMENTS

This constitution may be altered or amended at a regular meeting of the Council by a two-thirds vote of the members present, and any provision may be waived at any regular meeting by unanimous consent.

By-laws not in violation of the constitution may be adopted by a two-thirds vote of the Council.

OFFICERS, STANDING COMMITTEES, MEMBERS

OFFICERS FOR 1907–8

JOSEPH SWAIN	Swarthmore, Pa.	*President*	Term expires in 1910
JAMES M. GREEN	Trenton, N. J.	*Vice-President*	Term expires in 1909
JOHN W. CARR	Dayton, O.	*Secretary*	Term expires in 1908

EXECUTIVE COMMITTEE

THE PRESIDENT, *ex officio, chairman*

W. T. HARRIS	Washington, D. C.	Term expires in 1910
ELMER ELLSWORTH BROWN	Washington, D. C.	Term expires in 1909
JAMES M. GREENWOOD	Kansas City, Mo.	Term expires in 1908

COMMITTEE ON MEMBERSHIP

THE PRESIDENT, *ex officio*

JAMES M. GREENWOOD, *Chairman*	Kansas City, Mo.	Term expires in 1908
E. ORAM LYTE	Millersville, Pa.	Term expires in 1908
W. T. HARRIS	Washington, D. C.	Term expires in 1909
J. F. MILLSPAUGH	Los Angeles, Cal.	Term expires in 1909
LIVINGSTON C. LORD	Charleston, Ill.	Term expires in 1910
I. C. MCNEILL	Memphis, Tenn.	Term expires in 1910

COMMITTEE ON INVESTIGATIONS AND APPROPRIATIONS

Nicholas Murray Butler	New York, N. Y.	Term expires in 1908
F. Louis Soldan	St. Louis, Mo.	Term expires in 1908
William H. Maxwell	New York, N. Y.	Term expires in 1908
James M. Greenwood, *Chairman*	Kansas City, Mo.	Term expires in 1909
Frank A. Fitzpatrick	Boston, Mass.	Term expires in 1909
Elmer Ellsworth Brown	Washington, D.C.	Term expires in 1909
Augustus S. Downing	Albany, N. Y.	Term expires in 1910
Lorenzo D. Harvey	Menomonie, Wis.	Term expires in 1910
J. H. Phillips	Birmingham, Ala.	Term expires in 1910

MEMBERS

Note.—The letter "A" following a name denotes that the member is of the class elected by the Association; the letter "C," by the Council.

	Term expires
‡O. J. Craig, Missoula, Mont.	A 1908
‡David Felmley, Normal, Ill.	A 1908
*John R. Kirk, Kirksville, Mo.	A 1908
‡D. B. Johnson, Rock Hill, S. C.	A 1908
*J. F. Millspaugh, Los Angeles, Cal.	A 1908
W. M. Davidson, Omaha, Neb.	C 1908
Martin G. Brumbaugh, Philadelphia, Pa.	C 1908
*L. E. Wolfe, San Antonio, Tex.	C 1908
James E. Russell, New York, N. Y.	C 1908
*Oliver W. Westcott, Chicago, Ill.	C 1908
*W. T. Harris, Washington, D. C.	A 1909
‡Benjamin Ide Wheeler, Berkeley, Cal.	A 1909
William H. Maxwell, New York, N.Y.	A 1909
*Edwin G. Cooley, Chicago, Ill.	A 1909
Howard J. Rogers, Albany, N. Y.	A 1909
Miss N. Cropsey, Indianapolis, Ind.	C 1909
Lewis H. Jones, Ypsilanti, Mich.	C 1909
*Elmer Ellsworth Brown, Washington, D. C.	C 1909
*W. H. Black, Marshall, Mo.	C 1909
Nicholas Murray Butler, New York, N. Y.	C 1909
John W. Cook, DeKalb, Ill.	A 1910
F. Louis Soldan, St. Louis, Mo.	A 1910
*Lorenzo D. Harvey, Menomonie, Wis.	A 1910
†R. H. Halsey, Oshkosh, Wis.	A 1910
*Carroll G. Pearse, Milwaukee, Wis.	A 1910
Anna Tolman Smith, Washington, D. C.	C 1910
Josephine Heermans, Kansas City, Mo.	C 1910
*James H. Van Sickle, Baltimore, Md.	C 1910
Albert Ross Hill, Columbia, Mo.	C 1910
‡Brown Ayers, Knoxville, Tenn.	C 1910
*W. H. Bartholomew, Louisville, Ky.	A 1911
*Frank A. Fitzpatrick, Boston, Mass.	A 1911
*I. C. McNeill, Memphis, Tenn.	A 1911
*E. Oram Lyte, Millersville, Pa.	A 1911
*J. M. Greenwood, Kansas City, Mo.	A 1911
*Frank B. Cooper, Seattle, Wash.	C 1911
*Joseph Swain, Swarthmore, Pa.	C 1911
*Nathan C. Schaeffer, Harrisburg, Pa.	C 1911
Lewis C. Greenlee, Denver, Colo.	C 1911
*Z. X. Snyder, Greeley, Colo.	C 1911
‡T. A. Mott, Richmond, Ind.	A 1912
J. H. Phillips, Birmingham, Ala.	A 1912
Livingston C. Lord, Charleston, Ill.	A 1912
*James H. Baker, Boulder, Colo.	A 1912
*C. C. Van Liew, Chico, Cal.	A 1912
‡Ella F. Young, Chicago, Ill.	C 1912
*J. N. Wilkinson, Muskogee, Okla.	C 1912
‡W. O. Thompson, Columbus, O.	C 1912
*J. W. Carr, Dayton, Ohio	C 1912
George H. Martin, West Lynn, Mass.	C 1912
*James M. Green, Trenton, N. J.	A 1913
Augustus S. Downing, Albany, N. Y.	A 1913
‡George B. Cook, Hot Springs, Ark.	A 1913
‡Stratton D. Brooks, Boston, Mass.	A 1913
E. H. Mark, Louisville, Ky.	A 1913
*William E. Hatch, New Bedford, Mass.	C 1913
Bettie A. Dutton, Cleveland, Ohio	C 1913
*Charles H. Keyes, Hartford, Conn.	C 1913
Andrew S. Draper, Albany, N. Y.	C 1913
‡Clifford W. Barnes, Lake Forest, Ill.	C 1913

* Present at the council session at Los Angeles, July, 1907.

† Died July 25, 1907.

‡ Elected to membership at Los Angeles meeting.

HONORARY MEMBERS

Edwin A. Alderman, Charlottesville, Va.
Earl Barnes, Montclair, N. J.
Alexander Graham Bell, Washington, D. C.
D. Bemis, Spokane, Wash.
Thomas W. Bicknell, Providence, R. I.
Richard G. Boone, Yonkers, N. Y.
Albert G. Boyden, Bridgewater, Mass.
Anna C. Brackett, New York, N. Y.
John E. Bradley, Randolph, Mass.
Edward Brooks, Philadelphia, Pa.
George P. Brown, Bloomington, Ill.
William L. Bryan, Bloomington, Ind.
John T. Buchanan, New York, N. Y.
Matthew H. Buckham, Burlington, Vt.
David N. Camp, New Britain, Conn.
James H. Canfield, New York, N. Y.
Oscar H. Cooper, Abilene, Tex.
Oscar T. Corson, Columbus, Ohio.
William J. Corthell, Gorham, Maine.
E. W. Coy, Cincinnati, Ohio.
Charles DeGarmo, Ithaca, N. Y.
Robert E. Denfeld, Duluth, Minn.
John Dewey, New York, N. Y.
V. C. Dibble, Charleston, S. C.

Charles W. Eliot, Cambridge, Mass.
William W. Folwell, Minneapolis, Minn.
James A. Foshay, Los Angeles, Cal.
William K. Fowler, Lincoln, Neb.
H. B. Frissell, Hampton, Va.
R. B. Fulton, Miller School P. O., Va.
Charles B. Gilbert, Englewood, N. J.
Daniel C. Gilman, Baltimore, Md.
Aaron Gove, Denver, Colo.
James C. Greenough, Westfield, Mass.
W. N. Hailmann, Chicago, Ill.
G. Stanley Hall, Worcester, Mass.
Paul H. Hanus, Cambridge, Mass.
Walter L. Hervey, New York, N. Y.
J. George Hodgins, Toronto, Can.
James H. Hoose, Pasadena, Cal.
George H. Howison, Berkeley, Cal.
James L. Hughes, Toronto, Can.
Thomas Hunter, New York, N. Y.
Ellen Hyde, Farmington, Mass.
Edmund J. James, Champaign, Ill.
Charles M. Jordan, Minneapolis, Minn.
E. S. Joynes, Columbia, S. C.
Calvin N. Kendall, Indianapolis, Ind.
David L. Kiehle, Minneapolis, Minn.
William F. King, Mt. Vernon, Iowa.
Henry M. Leipziger, New York, N. Y.
James MacAlister, Philadelphia, Pa.
Francis A. March, Easton, Pa.
Lillie J. Martin, Stanford Univ., Cal.
Charles A. McMurry, DeKalb, Ill.
William A. Mowry, Hyde Park, Mass.
Mary E. Nicholson, Indianapolis, Ind.
John M. Ordway, New Orleans, La.
Warren D. Parker, River Falls, Wis.
John B. Peaslee, Cincinnati, Ohio.
Josiah L. Pickard, Brunswick, Maine.
Edward T. Pierce, Los Angeles, Cal.
J. R. Preston, Jackson, Miss.
John T. Prince, West Newton, Mass.
George J. Ramsey, Danville, Ky.
Frank Rigler, Portland, Oregon.
William D. Ruffner, Lexington, Va.
Ellen C. Sabin, Milwaukee, Wis.
Henry Sabin, Des Moines, Iowa.
J. G. Schurman, Ithaca, N. Y.
H. H. Seerley, Cedar Falls, Iowa.
H. E. Shepard, Baltimore, Md.
Irwin Shepard, Winona, Minn.
Edgar A. Singer, Philadelphia, Pa.
Charles R. Skinner, Watertown, N. Y.
Euler B. Smith, Athens, Ga.
J. Lancaster Spalding, Peoria, Ill.
Homer D. Sprague, Newton, Mass.
J. W. Stearns, San Diego, Cal.
Lucia Stickney, Cleveland, Ohio.
Grace Bibb Sudborough, Omaha, Neb.
John Swett, Martinez, Cal.
A. R. Taylor, Decatur, Ill.
W. R. Thigpen, Savanah, Ga.
L. S. Thompson, Jersey City, N. J
Charles F. Thwing, Cleveland, Ohio.
Julia S. Tutwiler, Livingstone, Ala.
Delia L. Williams, Delaware, Ohio.
J. Ormond Wilson, Washington, D. C.
Lightner Witmer, Philadelphia, Pa.
H. K. Wolfe, Lincoln, Neb.
C. M. Woodward, St. Louis, Mo.

DECEASED MEMBERS

Robert Allen.....1894
Israel W. Andrews.....1888
Joseph Baldwin.....1899
Henry Barnard.....1900
William N. Barringer.....1907
Newton Bateman.....1897
Reuben S. Bingham.....1902
Norman A. Calkins.....1895
Aaron L. Chapin.....1892
Clara Conway.....1904
J. L. M. Curry.....1902
N. R. H. Dawson.....1895
John W. Dickinson.....1901
Larkin Dunton.....1899
John Eaton.....1906
W. R. Garrett.....1903
Samuel S. Greene.....1883
John M. Gregory.....1898
George T. Fairchild.....1901
Daniel B. Hagar.....1896
R. H. Halsey.....1907
John Hancock.....1891
William R. Harper.....1906
William D. Henkle.....1882
Edwin C. Hewitt.....1905
Elnathan E. Higbee.....1889
Frank A. Hill.....1903
Burke A. Hinsdale.....1900
Ira G. Hoitt.....1905
George Howland.....1892
John S. Irwin.....1901
Henry N. James.....1901
H. S. Jones.....1900
Thomas Kirkland.....1898
Albert G. Lane.....1906
Merrick Lyon.....1888
Albert P. Marble.....1906
James McCosh.....1894
Charles D. McIver.....1906
Thomas J. Morgan.....1902
Lemuel Moss.....1905
M. A. Newell.....1893
Birdsey G. Northrop.....1898
Edward Olney.....1886
Gustavus J. Orr.....1888
Francis W. Parker.....1902
W. H. Payne.....1907
S. S. Parr.....1900
Selim H. Peabody.....1902
William F. Phelps.....1907
John D. Philbrick.....1885
Matilda S. Cooper Poucher..1900
William B. Powell.....1904
Zalmon Richards.....1899
Andrew J. Rickoff.....1899
Charles C. Rounds.....1901
Edward R. Shaw.....1903
William E. Sheldon.....1900
James A. Smart.....1900
R. W. Stevenson.....1893
Thomas B. Stockwell.....1906
Eli T. Tappan.....1888
Horace S. Tarbell.....1904
Charles O. Thompson.....1885
H. S. Thompson.....1904
Arnold Tompkins.....1906
James P. Wickersham.....1891
S. G. Williams.....1900
Emerson E. White.....1902

SECRETARY'S MINUTES

FIRST SESSION—Monday Forenoon, July 8, 1907

The Council met in Berean Hall, Auditorium Building, Los Angeles, Cal., and was called to order by Elmer Ellsworth Brown, President.

The minutes of the Asbury Park meeting were approved as printed.

An introductory statement of the purpose of the work of the Council was made by the President.

The following persons took part in the discussion of the topic, "Public School Finance; What Next?" Jesse D. Burks, principal Teachers Training School, Albany, N. Y.; Frank A. Fitzpatrick; James M. Greenwood; William T. Harris; George C. Pardee, ex-governor of California, Oakland, Cal.; Edwin G. Cooley; Carroll G. Pease; F. B. Cooper; J. W. Carr.

Vacancies in the Committee on Membership were filled for the current session of the Council by the appointment of J. F. Millspaugh and I. C. McNeill to take the places made vacant by the death of Albert G. Lane and Chas. D. McIver.

SECOND SESSION—Monday Evening, July 8

At 8 o'clock Monday evening a joint session of the Council and the General Association was held. The part of the program under the direction of the Council consisted of a "Report on Educational Progress during the Past Two Years," by Ella Flagg Young, of Chicago, Ill.

THIRD SESSION—Tuesday Forenoon, July 9

The Council was called to order in Berean Hall by the president at 9:30 A. M.

A committee consisting of Joseph Swain, L. E. Wolfe, and Carroll G. Pearse was appointed to consider the suggestions made by the President of the Council in his address.

The President announced that the Committee on Membership would also act as the nominating committee of the Council.

James N. Greenwood of the Executive Committee was called to the chair as President Brown was on program of one of the departments meeting at the same hour.

The first topic for general discussion was "Provisions for Exceptional Children in the Public School System." The following persons took part in the discussion: William E. Hatch, James H. Van Sickle, J. F. Millspaugh, L. E. Wolfe, Frank A. Fitzpatrick, John T. Prince.

A discussion of the "Report of the Committee on Instruction in Library Administration in Normal Schools" was presented by Frank F. Bunker, assistant superintendent of schools, Seattle, Wash. Discussion followed by J. M. Green and L. E. Wolfe.

L. D. Harvey presented a report of progress of the "Committee on Industrial Education in Schools for Rural Communities." A written report was submitted by the committee and the chairman asked that a new committee be appointed to continue investigations on this subject and to report to the Council from time to time.

James M. Green introduced the discussion of the subject, "Shortage in the Supply of Teachers." A paper on the same subject was presented by I. C. McNeill. Discussions followed by Oliver S. Wescott and Carroll G. Pearse.

The discussion of the topic, "Moral Education," was introduced by Clifford W. Barnes, chairman of the International Committee on Moral Training, Lake Forest, Ill., who was followed by James H. Baker; W. H. Bartholomew; J. W. Carr; J. L. McBrien, state superintendent of Public Instruction, Lincoln, Neb.; I. C. McNeill, Joseph Swain; W. T. Harris, and Oliver S. Westcott.

FOURTH SESSION—Thursday Forenoon, July 11

The Council met in executive session in Children's Hall, Auditorium Building, at 9:30 A. M., President Brown presiding.

The resignation of N. C. Dougherty as a member of the Council was accepted.

A letter was read by the Secretary in which Elmer Ellsworth Brown tendered his resignation as President of the Council and asked that someone be chosen in his stead. The resignation was accepted.

The report of the Committee on Investigations and Appropriations was submitted by the chairman of the committee, J. M. Greenwood, as follows:

REPORT OF THE COMMITTEE ON INVESTIGATIONS AND APPROPRIATIONS

The Committee on Investigations and Appropriations submits the following report on such matters as have been regularly brought before it, and recommends that investigations be made on each subject mentioned below. The Committee also recommends that the Board of Directors be requested to appropriate the amount of money asked for in order to defray the necessary expenses of each of the several committees recommended.

1. That the sum of five hundred ($500) dollars, or so much thereof as may be necessary, be appropriated to make a preliminary inquiry into the contemporary judgment as to the culture element in education, and the time that should be devoted to the combined school and college courses, and that the President of the Council appoint a committee of five to make a report at some future time to the National Council of Education on this subject.

2. That the sum of five hundred ($500) dollars, or so much thereof as may be necessary, be appropriated to defray the expenses of a committee to be appointed by the President of the Council to investigate and submit a tentative report on a system of teaching morals in the public schools of the United States.

3. That the sum of five hundred ($500) dollars, or so much thereof as maybe necessary, be appropriated for the use of the Committee on Industrial Education for Rural Schools, and that the present committee of five be reduced to three to be appointed by the President of the Council.

4. That a committee be appointed by the President of the Council to consider and make a preliminary report on the shortage of teachers—conditions, causes, and remedies—and that the sum of five hundred ($500) dollars, or so much thereof as may be necessary, be appropriated to defray the expenses of this committee.

5. That a committee be appointed by the President of the Council to consider and make a preliminary report on provisions for exceptional children in the public schools, and that the sum of five hundred ($500) dollars, or so much thereof as may be necessary, be appropriated to defray the expenses of this committee.

James M. Greenwood, *Chairman.*
Frank A. Fitzpatrick.
Elmer Ellsworth Brown.
Lorenzo D. Harvey.

On motion, the report of the Committee on Investigations and Appropriations was adopted.

The special committee appointed to consider the address of the President was submitted by Carroll G. Pearse, as follows:

To the President and Members of the National Council:

Your committee, appointed to consider the address of the President of the Council has examined the same and desires to report the agreement of the members of the committee with the views expressed by the President of the Council. They call particular attention to the following items:

1. Membership in the National Council confers an honor and brings a duty—a duty so important that the work of the Council should find a most important, if not the first, place in the attention and effort of each member of that body.

2. The investigations of this Council should be as thoro and exhaustive as those conducted by universities or by the scientific departments of governments. And to this end the membership of investigating committees appointed by this Council should be selected with the greatest care; in some cases the investigation should be placed in the hands of experts employed and paid for that purpose. These investigators may sometimes need, in prosecuting their investigations, to travel, either in the United States or abroad—perhaps both.

3. When reports of value have been made to the Council this body should place behind those reports the full force of its influence and should in all practicable ways seek both to bring to the attention of the educational forces of the nation the valuable subject-matter contained in the reports and also to secure the adoption and carrying into effect of such recommendations for action or procedure as the report may make.

4. That a committee of five be appointed by the President of the Council of which committee our world-honored leader, William T. Harris, shall be chairman and the United States Commissioner of Education and the President of this Council, shall be members, whose duty it shall be to consider and report to this Council what steps may be possible toward securing the co-operation of the various organizations for the promotion of education and the consideration of its problems, which may exist in the various civilized countries of the world.

Respectfully submitted,
CARROLL G. PEARSE. *Chairman*
JOSEPH SWAIN.
LLOYD E. WOLFE.

On motion, the report of the Special Committee on the address of the President was adopted.

The Committee on Membership submitted the following report:

To the National Council of Education:

Your committee on nominations of new members would submit a report as follows—that the following-named members, whose terms of office have expired, are hereby reappointed with terms as follows:

1. Jasper N. Wilkinson, Emporia, Kansas, term to expire 1912.
2. Geo. H. Martin, Boston, Mass., term to expire 1912.
3. J. W. Carr, Dayton, Ohio, term to expire 1912.
4. W. E. Hatch, New Bedford, N. J., term to expire 1913.
5. Bettie A. Dutton, Cleveland, Ohio, term to expire 1913.
6. Charles H. Keyes, Hartford, Conn., term to expire 1913.
7. Andrew S. Draper, Albany, N. Y., term to expire 1913.
8. Nicholas Murray Butler, New York City, term to expire 1909.

The following persons are recommended for appointment to fill vacancies for the unexpired terms of the following named persons who have been by the provisions of the constitution transferred to the list of honorary members by reason of their absence from two consecutive annual meetings of the Council.

1. Mrs. Ella F. Young, of Chicago, to fill the place of Miss Lucia Stickney, of Ohio, the term expiring in 1912.
2. W. O. Thompson, of Columbus, Ohio, to fill the place of Aaron Gove, of Colorado, the term expiring in 1912.
3. Clifford W. Barnes, of Lake Forest, Ill., to fill the place of William K. Fowler of Nebraska, the term expiring in 1913.
4. Brown Ayers, of Knoxville, Tenn., to take the place of Newton C. Dougherty, resigned, the term expiring in 1910.

Respectfully submitted,
J. M. GREENWOOD, *Chairman*
ELMER ELLSWORTH BROWN.
W. T. HARRIS.
J. F. MILLSPAUGH.
I. C. MCNEILL.
E. ORAM LYTE.

On motion, the report of the Committee on Membership was adopted and the Secretary of the Council instructed to notify each person mentioned above of his election to membership in the Council.

The Committee on Membership acting, as per instructions of the Council, as a Committee on Nominations made the following report:

J. H. Phillips, Birmingham, Ala., to succeed Edwin A. Alderman, term expiring in 1910.

To the National Council of Education:

The Committee would recommend for officers:

For President, Joseph Swain, for the term of three years.
For Vice-President, James M. Green, for the term of two years, to fill vacancy.

To fill vacancies in the Committee on Investigations and Appropriations.
J. M. Greenwood, to succeed himself, term expiring in 1909.
F. A. Fitzpatrick, to succeed himself, term expiring in 1909.
Elmer Ellsworth Brown, to succeed himself, term expiring in 1909.
Augustus S. Downing, to succeed himself, term expiring in 1910.
Lorenzo D. Harvey, to succeed himself, term expiring in 1910.
J. H. Phillips, Birmingham, Ala., to succeed Edwin A. Alderman, term expiring in 1910.
F. Louis Soldan to succeed N. C. Dougherty, resigned, term expiring in 1908.
William H. Maxwell to succeed William R. Harper, deceased, for the term ending 1908.

It is recommended that the vacancies occurring on the committee on membership be filled as follows:

W. T. Harris, to succeed himself, term expiring in 1909.
Livingston C. Lord, to succeed himself, term expiring in 1910.
J. F. Millspaugh, to succeed Albert G. Lane, deceased, term expiring, 1909.
I. C. McNeill, to succeed Chas. D. McIver, deceased, term expiring, 1910.

To fill vacancies in the Executive Committee.

The President, *ex officio*.
Elmer Ellsworth Brown to succeed Anna Tolman Smith, term expiring in 1909.
W. T. Harris to succeed Howard J. Rogers, term expiring in 1910.

On motion, the report of the Committee on Nominations was adopted and the persons named therein were declared duly elected to fill the respective offices named.

After thanking the Council for courtesies shown him during his term of office, the retiring President appointed Carroll G. Pearse, and W. H. Bartholomew to escort Joseph Swain, president elect, to the chair.

On motion, the committee on the affairs of the office of United States Commissioner of Education was discontinued.

There being no other business, the Council adjourned.

J. W. Carr, *Secretary*.

The following special committee has been appointed in accordance with resolution No. 4 (see above), on Co-operation with Educational Organizations in Other Countries:

W. T. Harris, Washington, D.C. Elmer Ellsworth Brown, Washington, D.C.
Joseph Swain, Swarthmore, Pa. Nicholas Murray Butler, New York, N.Y.
J. M. Greenwood, Kansas City, Mo.

Irwin Shepard, *General Secretary*.

PAPERS AND DISCUSSIONS

INTRODUCTORY STATEMENT

UNITED STATES COMMISSIONER ELMER ELLSWORTH BROWN, PRESIDENT OF THE COUNCIL

The National Council of Education has been constituted as a permanent working committee of the National Educational Association. Permit me at this time to emphasize its character as a working body.

It has become clear that the National Educational Association, with its large resources, can make some substantial contributions to the technical and professional literature of education. The ability carries with it the responsibility. But an educational literature of lasting value can be made only on the basis of difficult and laborious investigations. In order that such investigations may be properly conducted, it is necessary that some members of the Association should devote to this undertaking an unusual amount of time, and severe and intelligent attention to the business in hand.

Election to the Council is a very high honor, one of the highest honors which the National Educational Association can bestow; but as is the ordinary practice in a democracy and should be the ordinary practice in a democracy, the honor is bestowed not as a decoration but as a call to service and an opportunity for service. The view of membership in the Council which is emphasized here may be expressed in other words as follows: The special duties devolving upon the Council of Education are of so delicate and critical a character that they can be properly performed only by those whose

main activity, so far as the National Educational Association is concerned, is concentrated for the time being upon the business of the Council.

It is in harmony with the main business of the Council that it should, from year to year, present a general survey of educational progress. Such a survey is a means of getting, from time to time, a new perspective among the large educational needs to which the Council has to minister.

What is the field in which special investigations may most profitably be carried on by the National Educational Association? It seems desirable that some special consideration should now be devoted to this question. A large and important part of our standard literature of education is imported from other English-speaking countries and from the continent of Europe. Another large and important part is provided by the contributions of individual writers, put forth in the ordinary course of the publishing trade. These two sources of supply can be depended upon continuously. They will be very uneven in their contributions, but we may leave them out of consideration at this time for the reason that they are beyond any sort of control or influence which we can exercise. For the rest, we have these three large sources of supply: First, the education offices of the national and state governments; secondly, the departments of investigation and publication of our greater universities; thirdly, our state and national educational associations. Without attempting any forced or artificial distribution of function among these three agencies, I think it is worth our while to consider what would be the most natural and useful division of labor among them. Upon such division of labor we can, in this body, exercise a very considerable influence, and if we undertake to do so in view of a comprehensive survey of the educational field, it seems not unlikely that we may, in the course of a few years, bring about arrangements which will greatly economize the efforts which are put forth in the production of an educational literature, and will render those efforts more fruitful. Let us limit the discussion to investigations the results of which are embodied in theses for the higher degrees in the graduate schools of our universities, the investigations and publications of the national Bureau of Education, and the investigations and publications of the National Educational Association.

The doctor theses in education, prepared in our universities, are generally the work of comparatively young men, who have, however, already seen enough of the actual work of teaching to enable them to give somewhat of the touch of actuality to their productions. Such a thesis must necessarily be of limited extent, and in the nature of a monograph. The range of subject may be very great: The history of education, educational theory, experiments of a psychological character having a bearing upon education, together with the interpretation of such experiments, statistical studies in American education, based either upon published statistics or upon information gathered by use of the questionnaire, and the comparison of American with foreign educational systems. To some extent first-hand studies of the working of

accessible institutions and the results of experiments in educational method can be embodied in such publications.

The National Bureau of Education presents as its *pièce de résistance* an annual report, embodying the statistics of a very wide range of educational institutions in this country, and accounts of educational progress in many fields both American and foreign. It has published also a large number of historical monographs in the form of circulars of information, and is undertaking the issuance of a bulletin embodying timely papers with reference to current educational procedure.

The chief publications of the National Educational Association, issued under the general supervision of this Council, have been the two historic reports on secondary education, those of the Committee of Ten, and the Committee on College Entrance Requirements; the comprehensive report of the Committee of Fifteen, relating chiefly to elementary education; a general report on normal schools; two reports on the financial aspects of public education, that relating to salaries, etc., of public school teachers, and that on taxation as related to public education; two reports relating to rural schools, that of the Committee of Twelve, and the preliminary report on industrial education; and a report on instruction in library administration in normal schools. It is a notable and influential list of publications, altho far from uniform in character and excellence.

While these three classes of publications overlap, and no sharp line of demarcation between them is desirable, I think that a general distinction of a somewhat useful sort may be stated about as follows: The university thesis must concern itself with a subject which can be treated within the limits of a single monograph. Generally speaking, it cannot be expected to embody any ripe or comprehensive judgment. It should, however, show a clear application to a comparatively narrow subject of some thoroly mastered method in the collection and organization of materials. In some instances, small and well-defined portions of a large inquiry may, to good advantage, be worked out as special investigations by graduate students in a university.

Both the Bureau of Education and the National Educational Association should at times undertake investigations of a larger sort, such as must extend over a period of years, involving the bringing together of results of various special inquiries, and, in some instances, involving also the employment of special agents to make personal observations in various parts of this country and of foreign countries. Such investigations may on occasion even call for the conduct of special educational experiments, extending over considerable periods of time.

The Bureau of Education may properly lay especial stress upon statistical inquiries; and upon comparative studies in the field of educational legislation and educational reports in this country and thruout the world, which its great collection of such documentary matter and its well-established system of correspondence should enable it to carry on to good advantage. While it may

be able to offer individual contributions to the sum of educational doctrine, its work will mainly deal with those facts relating to educational institutions and processes which can be objectively presented and in large part reduced to some form of measurement. In the long run it should be able to do something worth while in the direction of the standardizing of American systems of education.

The National Council of Education is not so favorably situated with reference to the making of comprehensive and accurate comparative studies of educational facts, but it is in a peculiarly favorable situation as regards the gathering up and digestion of current educational opinion. By collating the judgments of the most successful teachers and school administrators it can render that most important service—the determination of widely approved standards of educational practice. It can, moreover, exercise a great influence on the development of educational doctrine, out of which the standards of educational practice are to proceed, by bringing together into direct and suggestive comparison the best formulations of educational doctrine which can be had.

By such presentation and comparison it can facilitate that wholesome process in the development of all educational doctrine which is represented by the scriptural saying, "Prove all things, hold fast that which is good." While no field of education is foreign to the interest of the Council, its best work will undoubtedly be done for the most part in those inquiries in which it deals with education as represented by the teaching profession, and with those appliances and processes with which the teaching profession has most directly to do.

These suggestions are offered not with any thought of an immediate and complete reorganization of educational research in this country, but rather with a view to promoting a broad consideration of available agencies. Thru such consideration, we may hope, within the next few years, a more effective division of labor and co-operation of agencies may be brought about. There is urgent need of a professional literature of education. In its beginnings it has already appeared. It is for us to take counsel as to the ways in which the development of such a literature may be carried forward, without waste of effort, to substantial results. To make a more scientific literature of education, and particularly a more scientific literature of the teaching profession; and thru such literature to set higher standards of educational practice and make those standards more definite—these are the ends we have in view.

Now a few words as to methods and means:

The investigation of the Council must be as rigorous as those of the universities or those of the scientific departments of the national government. They cannot otherwise hold their place and justify their cost. When an investigation is carried on by a committee of several members the more scientific portions must needs be conducted by those members who are experts in the matters considered. Or, if the committee does not have such experts in its mem-

bership, competent specialists should be employed to do the work, as was done in the case of the report on teachers' salaries. In some cases it will undoubtedly be better to lay the full responsibility for the investigation upon some one competent person, giving him the help of an advisory committee and empowering him to employ expert assistance where it may be needed. Work may be divided up between the Council representatives on the one hand and such other agencies of research on the other hand as may be in a position to do certain parts more thoroly and economically. On occasion, competent agents should be employed to travel from one place to another, in this country or in foreign countries, making such personal studies of actual educational institutions and processes as may add to the value and usefulness of any given report. All of these things should be done with the utmost care to avoid the waste of a single dollar of the resources of the National Association. But there should also be care to make every report as valuable and as useful as possible, and any wise expenditure which may be necessary to that end should be recommended by the Council to favorable consideration by the directors of the Association.

When a good report has been published it should be followed up, that the good that is in it may not be lost. In some cases it should be followed up by further investigations in the same field. In other cases, or it may be in the same, the good report should be followed up by bringing its recommendations to the notice of those who can put them into effect, and, if need be, by urging that such recommendations be carried into effect. The co-operation of the Committee on Resolutions of the Association should be sought to this end.

The program for this meeting of the Council has been prepared with the idea in mind that is here presented—that more and more the Council is to be an effective working body, and that its work is to result in a literature which shall make for positive improvements in education. An advanced student of educational doctrine, who is also a teacher of long and varied and successful experience, will this evening present the annual, or as it happens this time, a biennial survey of educational progress. At this first session the two important reports which have already been published by the Association on certain aspects of public-school finance are to be followed up by a discussion of the next steps to be taken toward improvement in our public-school finance. In the session of tomorrow the two reports already published on instruction in library administration and industrial education in schools for rural communities are to be followed up in a somewhat similar way. At the same session, three additional topics, relating to provision for exceptional children, the shortage of teachers, and moral education, are to be considered with a view specifically to the question: What steps shall be taken in the premises by the National Council? Every member of the Council has been requested to participate in some of these discussions. Of the fifty-six members now living, thirty-one have expressed their intention to be present at this meeting; and of these twenty-five have named the topics on which they will speak and their names

accordingly have been placed upon the program. The other members present will undoubtedly speak on such topics as they may choose. Finally, these discussions are all intended to be preparatory to a consideration by the committee on Investigations and Appropriations, and later by the Council as a whole, of the practical question: What shall the Council do about these things? and the correlated question, What action shall it recommend to the National Association? Let us enter upon these discussions in the hope that from them shall emerge some action which shall count for the positive betterment of American Education.

It is with deep sorrow that I have to announce the death, since the last meeting of the Council, of three of the most honored and useful of its active members: William R. Harper and Albert G. Lane, of Illinois, and Charles D. McIver, of North Carolina; and of three of the most venerated of its honorary members: John Eaton, of the District of Columbia, Albert P. Marble, of New York, and William H. Payne, of Michigan. In place of public exercises of commemoration, notices of the life and services of these men, our brothers, will be found in the Anniversary Volume recently issued, except that the memorial of William H. Payne will appear in the published proceedings of this meeting. We cannot forget their works nor the strong uplift of their personal character and influence. Our membership in this Council has been greatly enhanced in value to us all because those six great teachers have been members here with us. So great indeed have their services been that the whole history of American education has been immeasurably enriched thru their lives. We pause here to speak our few words of appreciation—of friendship and remembrance—and to gather from the mention of their names new courage for the work before us, new devotion to its loftiest spirit and purposes.

There is one more suggestion that I venture to make in closing. In many ways, provisional and previsionary as yet, the nations are making comparison of their educational standards and practices. From such comparisons there must ultimately issue some world-standards in education. Such world-standards will not only make for the uplift of education; they will make for a spirit of union among the peoples; they will make for world-peace and a nobler civilization. Already the great army of teachers thruout the world half-consciously are working for this common end. Their national differences are of great price and of lasting significance, but their unities are greater than their differences. Has not the time come when they may profitably enter into more direct co-operation for these common ends? And may not measures looking toward such co-operation profitably be taken here, at this meeting of teachers and friends of education, on the eastern edge of the Pacific, at a time when representatives of the nations are met in that second great conference for peace, on the eastern edge of the Atlantic? It is greatly to be desired that

American teachers do their full part in this matter, even if their part be to initiate a movement that shall be world-wide in its influence.

I would accordingly propose that a committee be appointed by this Council, of which our world-honored leader, Doctor Harris, should be chairman, to take this matter under consideration, and that if it seem good to such committee a conference be had with the officers and directors of the National Educational Association with a view to extending, on behalf of the Association, an invitation to the teachers' associations of other lands to co-operate with us in whatever ways such co-operation may be found desirable; the chief end of such united effort being the strengthening of those educational influences which work for the common good of all peoples that on earth do dwell.

I trust this plan may seem to you worthy of serious consideration. But that no hasty action be taken, I would respectfully ask of the Council that this and the several other suggestions offered in this paper be first referred for orderly consideration to a special committee who shall report to the Council at one of the earlier sessions of this meeting.

PUBLIC-SCHOOL FINANCE WHAT NEXT?

I

JESSE D. BURKS, PRINCIPAL OF TEACHERS TRAINING SCHOOL, ALBANY, N. Y.

The many desirable or necessary next things in public-school finance provide a wide field for such a discussion as the present one. Before any important step in administration can be taken, however, and before the problems involved can be discussed to the best advantage, we ought to ascertain some general and definite administrative standards by which to measure the effectiveness and economy of various financial policies that may be proposed or adopted from time to time. It is to the need and the value of such standards that this part of the general discussion will direct special attention.

There has been a marked tendency for each community in the United States to develop its own standards in the conduct of its educational system without much regard to what other communities have been doing. To a certain extent this is necessary and proper. Local conditions as to wealth, commercial and industrial activities, cost of living, and the like, modify very materially the needs and the resources of communities. There has no doubtbeen much wasteful experimentation that might have been avoided by a little comparative study of administrative problems. The situation is not unlike that under which the early geographical explorers undertook their voyages. The new-found shores were uncharted, the trackless ocean held men back by its terrors, safe retreats and harbors were unknown. It was not until these hindrances were removed that commerce and free intercourse between the Old World and the New were found safe and easy.

The remarkably wide variation in administrative practice among the cities of this country is in itself sufficient evidence of the need for comparative

study as a basis for the more intelligent and effective administration of our schools. The following tabular statement concerning the financial administration of the city-school systems of this country shows at a glance the striking variation. The available data for all cities above 25,000 in population are included in the table:

TABLE I

FACTS CONCERNING CITY SCHOOL ADMINISTRATION

	Lowest city	25% of cities below	50% of cities below	75% of cities below	Highest city
Per-capita expenditure for all municipal purposes	$ 4.00	$ 9.00	$ 12.00	$ 15.00	$ 39.00
Per-capita expenditure for current school expenses	0.50	2.20	3.00	3.60	5.75
Per cent. of total expenditure devoted to schools	6%	20.6%	26%	31%	48%
Expenditure per pupil for teachers' salaries	$ 12.00	$ 17.20	$ 20.00	$ 22.50	$ 32.00
Expenditure per pupil for other current expenses	1.00	6.20	7.80	9.50	23.00
Salary of superintendent	1,500.00	2,375.00	2,600 00	3,400 00	10,000.00
Maximum salary of principals	500.00	1,170.00	1,450.00	1,875.00	3,500.00
Initial salary of teachers in elementary schools	225.00	325 00	387.00	440 00	700 00

In order that administrative standards may be established it is, of course, first necessary that an appropriate body of facts be ascertained. Each of the six special studies upon which the present discussion is based rests upon a large body of facts specially collected by the person who undertook the investigation involved in the study. These studies are excellent examples of the kind of work that must be carried much farther if school administration is to be made a matter of exact knowledge rather than of individual opinion. The point to be emphasized just here is that such studies might be made with much greater ease and, therefore, with greater frequency if the many school reports now periodically issued were so modified as to meet not only local and temporary needs, but to serve the purposes of general comparative study as well.

There is an immense body of data in the annual school reports of cities, in the state reports, in the reports of the United States commissioner of education, and elsewhere, which might easily be made to furnish the basis for the accurate study of many important educational problems. In the school reports of a random twenty-one cities, for example, were found 1,462 different headings under which statistical data are given. Of this large number of headings, however, over 900 are found in but a single one (that is, some one) of the twenty-one reports. Over 200 of the headings are found in but two of the reports; 100 are found in but three; and 90 per cent. of all the headings are found in fewer than five of the reports. It is obvious that while there is a great mass of data available, there is a notable lack of agreement as to what

facts it is worth while to include in school reports. This makes it almost impossible to utilize these reports as a basis for comparative study.

Lack of uniformity in reporting, then, constitutes the first obstacle in the way of a comparative study of school administration. Another serious obstacle is the fallacious statistical method that characterizes most of the school reports. The two most conspicuous and most general fallacies are: first, the fallacy of averages; and, second, the fallacy of mixed species. It will be well to consider examples of these errors.

The fallacious use of the average may be illustrated by the statement of per-capita expenditure for schools given in the report of the commissioner of education. This statement consists of a series of averages, first for the United States as a whole and then for each of the five geographical divisions and for each state, separately. For the state of New York, for example, the expenditure per pupil of the forty-nine cities of the state is given as $28.15. When we calculate the per-pupil expenditure of each of these cities separately, we find the following remarkable variation:

TABLE II

Expenditure per pupil	$11	$12	$13	$14	$15	$16	$17	$18	$19	$20	$21
Number of cities	1	2	3	3	8	2	5	4	8	3	2
Expenditure per pupil	$22	$23	$24	$25	$26	$27	$28	$29	$30	$31	$32
Number of cities	1	1	0	3	2	0	0	0	0	0	1

All of the cities except one, it will be seen, are below the average; most of them far below. The one city above the average is so far above and has such an immense preponderance in expenditure and in school attendance as to counterbalance all of the other forty-eight cities of the state. The average fails to give an adequate idea concerning the expenditure per pupil in this state, because the deviation of the individual cities from the average is a factor as important as the average itself. Similarly, the averages for the geographical divisions are undoubtedly misleading, and could not be used to great advantage as a basis for a comparative study of administrative problems.

The fallacy of mixed species is almost invariably found in school reports. It is a common practice, for example, to compute expenditure per pupil by taking the gross expenditure for all of the schools of a city and dividing by the whole number of pupils. Expenditure for "teaching and supervision" or for "current expenses," however, may include expenditures for kindergartens, elementary schools, high schools, truant schools, trade schools, manual-training schools, mechanic-arts schools, teachers' training schools, vacation schools, recreation centers, schools for blind, deaf, and other defective children, recreation piers, city colleges, and day nurseries. It is evident that a bare statement of "cost per pupil" not only must frequently fail to convey an intelligible meaning, but must often actually misrepresent the essential facts.

When we compare the per-pupil expenditure, calculated in this gross way, with the expenditure computed separately for night schools, kindergartens, elementary grades, high schools, and special schools, we see at once the misleading character of the gross figure. The following figures were calculated from data given in the school reports of the cities named:

TABLE III

EXPENDITURE PER PUPIL

City	Gross	Night Schools	Kindergartens	Elementary Grades	High Schools	Special Schools
Boston.....	$36.51	$12.00	$24.00	$27.00	$85.00	$225.00
Cambridge.....	34.31	.....	26.00	27.00	50.00	79.00
Chicago.....	32.47	.....	24.00	18.00	60.00	121.00
New Bedford....	31.28	.....	30.00	25.00	.....	34.00
Washington.....	30.21	4.00	20.00	22.00	50.00	38.00
Syracuse.....	25.75	6.00	10.00	17.00	30.00	36.00

A comparison of the items for any one of the six cities in this table will show that each of the several kinds of school is a type by itself. To say that the cost per pupil for current expenses in New York city and Paterson, N. J., is $40 and $25, respectively, is not altogether unlike stating that the average value per head of the live stock on two neighboring farms is $40 and $25, respectively—the live stock on one farm consisting of a few thorobred horses and a large flock of domestic geese; that on the other, of a number of ordinary work horses and a flock of Angora goats. As *arithmetical results*, the averages in all of these cases may obviously be true; but as statements of significant facts they are clearly inadequate.

The elimination from the reports of the two fallacies referred to would remedy most of the positive errors of method, and make it possible to give definite and intelligible interpretation to any item. If provision could then be made for something approaching uniformity and accuracy in accounting, we should have at hand a mass of material upon the basis of which standards of administrative practice might be ascertained.

With a system of accounting following modern business principles, and a properly organized plan for measuring educational results, it should be possible in schoolwork, as it already is in well-conducted commercial enterprises, to compare varying expenditures for a given purpose with the corresponding degrees of excellence in results. It should, furthermore, be possible to ascertain the educational advantage, if any, of high salaries for teachers or principals; to determine the most advantageous distribution of expenditure as between primary, grammar, and high-school grades; to find what is a reasonable expenditure per capita of population for school purposes, and what percentage of total city expenditures may economically be devoted to school purposes. These and hundreds of similar problems must constantly be solved by school officers if the next steps in public-school finance are to be in a permanently right direction. Without scientific experiment,

comparison, and verification, there is no possible basis for the determination of such problems except that of mere tradition or of individual opinion.

Expenditures for school purposes, which are now classified according to most varied and often inexact systems, should be reported in accordance with a perfectly definite, exact, and uniform system. No unclassified heading such as "miscellaneous expenditures" should be introduced, but the specific nature of expenditures should, in every case, be indicated. The expenditures, classified under proper general headings such as capital outlay, decrease of school debt, salaries, educational supplies, and maintenance of plant, should furthermore be distributed in such a way as to give separately the expenditures for high school, elementary school, kindergarten, and other grades of school which, as we have seen, constitute distinct species for purposes of accounting. Until we have put into practice such some scheme of classification as this, we shall be unable to speak with definiteness concerning public-school finance, and shall find it impossible to make comparisons that can serve as safe practical guides in administration.

By lack of co-ordination and co-operation and for other reasons, school administration has thus far failed to take the place that it should oc upy among the directive activities of the world. It can take this place only when it comes to recognize the value and the necessity of expert scientific knowledge and of exact method. Superintendents and other school officers are in positions to provide a body of facts covering a wide range of educational experience. This can be made useful only by properly organized co-operation. A definite and intelligent plan, pursued by even a small number of men working consciously toward a common end, would soon enable a school superintendent to face his problems with a body of established facts, rather than with a mass of conflicting opinions.

To settle educational questions by adequate tests would mean immeasurable advance in educational practice. The random and ill-controlled work of many of our schools could be as far surpassed as the conventional devotion to authority in mediaeval Europe is surpassed by modern experimental methods. Under such conditions no one need mistake even experienced judgment for proof, and the number of questions in regard to which men will plunge into controversy instead of resorting to investigation will have been reduced to a minimum. The social significance of education and a widely recognized demand for a reorganization of education emphasize the importance of co-operation, on the part of all students and directors of education, in an effort to establish, at every possible point, a scientifically verified basis for practice.

II

GEO. C. PARDEE, FORMER GOVERNOR OF CALIFORNIA, OAKLAND, CAL.

"Public School Finance—What Next?" is the subject we are asked to discuss in this symposium. I shall consider it from the standpoint of the

state. In order to come to any sort of conclusion as to what the "next" shall be, it is necessary, first, to know what the present conditions are. That, fortunately, has been set before us in the very able investigations covering the school finances of the various states. An attempt to summarize these investigations would be a task of supererogation. At any rate, I shall content myself by saying that it appears from these investigations that there is no working-plan of school finances that seems entirely satisfactory. "What next?" therefore, might be answered by saying that some plan ought to be devised which would be entirely satisfactory. What that plan shall be, no man or woman can, I think, assert, with any degree of a priori certainty. For the best-laid theoretical plan would be found to have many flaws, imperfections, and inequalities, when put to the test of actual practice. Then, too, the conditions surrounding educational matters differ so radically in different states and even in different parts of the same state, that it would be a very difficult matter for this, or any other similar, body to evolve a plan which would fit all the conditions in all the states.

The best that can be done, it seems to me, is to keep up a persistent, insistent agitation of the question of school finances, an unsparing exposure of such bad conditions as may exist, in order that, being brought to the attention of those who are directly and by law intrusted with the solution of such problems, better and more satisfactory results may be gradually obtained. For, with all deference, it appears to me that here in California, at least, quite an appreciable percentage of our school people, both lay and professional, are too much disposed to say that, because a certain condition is, it ought to continue to be.

Some little time ago the governor of California had occasion to examine into the manner of the distribution of the school money of the state. He found, much to his surprise, that the teachers employed in the various counties of the state were receiving, under the then governing law, varying amounts of the state's money. For instance, each of the three teachers in one of the smaller, poorer, mountain counties was receiving only $275 per annum of the state's money, while each teacher in the richest and largest city of the state was receiving something over $700 per year of that money; while between these two extremes the teachers of the other counties were receiving varying sums from the state treasury. Now, as the state school money in California can be used only to help pay teachers' salaries, the governor referred the matter to the school people and wanted to know why this unequal distribution of the state's money was made. The answer was to the effect that it was the law; that it had been the law for many years; that it had received the tacit, if not the active, approval of all school people since it was enacted, and, therefore, being the law, and being ancient, and being with the consent of the school people all these years, it must be right and proper.

The investigation was continued, and it was found that, altho the state's money was distributed to the counties on the theory that it was to equalize

the educational burdens of the poorer counties, one of the poorest counties in the state was compelled to levy a county school tax of fifty cents on the hundred dollars, the limit allowed by law, in order to maintain her rather inadequate schools; while the richest county in the state, in order to support its very good schools, was compelled to tax herself but six cents on the hundred dollars. This condition appeared to be absurdly, if not wickedly, unfair; and it was also referred to the school people to be met, as before, with the reply that it was the law; had been the law for many years; had received the support of school people all these years, and, therefore, because it was the law, was ancient, and had been approved by successive corps of school people, must, of course, be right and proper.

These answers were not satisfactory, and a campaign of agitation and education was inaugurated looking to the amendment of the law by the legislature. And, rather to his surprise, the governor found that there was considerable opposition from some of the school people, who, quite good-naturedly, seemed to think that a layman ought not to attempt to interfere in a matter with which the professional school people were satisfied, because it was, had been for a long time, and, therefore, ought to continue to be.

The problem, however, was worked out. It was found that the vice of the law lay in starting with the daily average attendance, and not with the teacher, as the basis for the distribution of the state's school money. In other words, the state paid a certain sum for each child attending school; and this money went to help pay the teachers' salaries. In San Francisco, where it was possible to have one teacher for every forty pupils, the state's money went far toward paying the teachers' salaries; but in little Alpine County, for instance, where, because of the dispersion of the sparse population, it was necessary to have three teachers, in as many schools, to teach forty pupils, the state money, paid for the use of forty pupils, had to be divided among three teachers and was, therefore, nowhere near enough to pay their salaries. The result was that Alpine County, one of the poorer counties of the state, was taxed very heavily to maintain comparatively poor schools, while San Francisco, the richest county in the state, was enabled, with the state's aid, to carry on good schools at a very slight cost to herself. The legislature, however, greatly, tho not entirely, reformed this inequality; and every California teacher now receives nearly the same amount of the state's money for the support of the public schools.

You will, I hope, pardon me for this somewhat lengthy account of the difficulties encountered in the attempt to right what seemed to be a great wrong on the country teachers and the country children of this state. It appears to me, however, that it will serve as an illustration of what I meant when I said that in order to ascertain what the "next" shall be in school finances, it is necessary, first, to ascertain what present conditions are. Those conditions being ascertained for each state, they may be bettered, as a preliminary step, without the imposition of any heavier burdens of state taxation.

To illustrate: We all know that the teachers of California, especially the country teachers, were (and, for that matter, still are) poorly paid. To reform this condition it was proposed by some of the school people to increase the money raised by state taxation for the payment of public school teachers. One-half of the net income of this state being annually paid out for education, and the state paying 46 per cent. of the cost of the public schools, while the average state pays only 16 per cent. of that cost, any increase of state taxes for school purposes, before the existing evils had been remedied, would have added another burden to the taxpayers' already heavy one, but it would not have achieved the desired result, viz., the equalization of that portion of the teachers' salaries paid by the state.

I take it that you will agree with me that, even tho "the whole state is interested in the education of the children of the state,"[1] that education should be so bestowed as not to add any unnecessary burden to those already so cheerfully borne by the taxpayer, and that the first step toward the "next" should be the proper and economical use of the finances already placed at the disposal of the school people. By "economical" I do not mean "niggardly," but a proper, fair, and equal use of the money appropriated, so that every child of the state, whether he be in a big school or a little one, whether his teacher has a class of forty or one of ten, shall receive from the state an equal amount of educational advantages from the money of the state. In other words, I mean that the teacher, and not the pupil, should be the unit upon which the state school money should be apportioned. I mean that a teacher, in a sparsely settled county, where, because of the sparse population, a dozen children constitute a school, should receive just as much of the state's money as does the teacher of a class of forty in a densely populated city. The natural advantages of the wealthy cities will easily enable them to add enough to the state's money to enable them to pay their teachers larger salaries than the sparsely settled and, therefore, poorer districts can pay theirs, by adding to the contribution of the state. The state will be giving every teacher a "square deal" when it provides that, so far as it is concerned, the teachers with country schools of a dozen pupils shall be paid as much of its money as the city teachers with classes of forty. For the state to thus look after the pecuniary interests of the teachers is equivalent to looking after the educational advantages of the children. For, after all, good teachers require, and ought to have, good pay, while poor teachers ought to have no pay at all. Cubberly says:

> In a majority of the states of the Union the methods in use for distributing state funds for schools are not based on the best principles, and do not afford the relief which should be given; and, further, that the adoption of a better method of distribution would enable many states, with no material increase in the funds at their disposal, to relieve the burdens of those communities least able to bear them and to increase materially the length of school term, and to do this without unduly increasing the burdens of local support on any community.[1]

[1] Cubberly, *School Funds and Their Apportionment*, p. 19

With these conclusions of my distinguished fellow-Californian I heartily agree. The experience of this state well bears out the statement of Professor Cubberly. And these results, I am convinced, ought to be the first "next" to be striven for in each state where these things have not yet been achieved. And bearing in mind the former experience of the teachers of this state, I am convinced that one of the first steps should be so to arrange the school finances of the state that, no matter how large the classes in the cities, because of their large populations, nor how small in the country, because of the sparse population, each and every teacher in each state should receive an equal amount of that state's school funds. In other words, the teacher, rather than the pupil, should be the unit on which the state's money should be distributed. The money may be collected on the basis of the child; but the teacher should be the unit of distribution. For the teacher, rather than the number of pupils, is the true basis of a public school.

It is objected to this that the neglecting of the element of "daily average attendance" in the distribution of the state's money will greatly lessen, if not remove, the incentive for the local school authorities to induce or compel maximum school attendance. In other words, it is claimed that if the various school districts can get more money from the state by securing a larger attendance at their schools, they will, in practice, make greater efforts to secure that attendance than they would on a teacher basis without any reference to the matter of daily average attendance. Assuming for the moment that this is true and that it is necessary to offer some inducement to school authorities, in order that they may do their full duty, let us see if there be not a more efficient, because more direct, method of so stimulating the school authorities to increase and keep up the daily average attendance to the greatest possible practical maximum.

If it be a fact that the local school authorities of the state can be induced to attend to the matter of daily average attendance only by the giving of bonuses out of the state treasury to the local school treasuries, is it not probable that the efforts of these same school authorities will slacken so soon as their school treasuries have received a sufficient sum from the state to enable them to conduct their schools with an adequacy sufficient to satisfy them and the communities in which they have official being? To illustrate: In the large and congested cities, it may be that a daily average attendance of 75 per cent. of the children of school age will, on a daily average attendance basis, enable the school authorities of those cities to get from the state treasuries enough money to practically run their schools; in which case, the incentive to increase the daily average attendance would be removed, for the reason that an increased attendance would call for more teachers and more schoolhouses, the increase in which would not be met by the increased attendance money from the state. In the sparsely settled country, however, it is necessary to get and keep as large a daily average attendance as may be possible, in order to secure enough state money to ease up the burden of local taxation.

I take it that it is the desire of the state to see all, or as many as possible, of its children in attendance on the public schools. If this be so, ought not the state to arrange its daily average attendance bonus, if it feels called upon to give one, in such a manner that it will accomplish its desire? Ought not the state to say to the county school authorities:

> If only a state daily average attendance bonus will induce the county school authorities to work for an increase in daily average attendance, the state will give you a daily average attendance per-capita bonus, in addition to a very liberal per-capita teacher bonus, if you, on your part, will see to it that your daily average attendance is made to equal or exceed 95 per cent. of the school census children in your counties. If, however, your daily average attendance does not equal 95 per cent. of your children of school age, but does equal or exceed 90 per cent. thereof, then the state's daily average attendance per capita bonus shall be only one-half that which is paid to those districts which secure and maintain a 95 per cent. daily average attendance. But if your daily average attendance falls below 90 per cent. you shall receive no aid from the state treasury.

California now pays, in addition to the teacher per-capita bonus, a bonus on daily average attendance, no matter whether that daily average be large or small. In the large cities, where the children of school age are massed, the daily average attendance, while large in numbers, is not what it should be. And because of this congestion of population the state's per capita for daily average attendance, being paid without any reference to the ratio of that attendance to the total number of children of school age, the state school funds furnish such a large sum to the city school treasuries that the city schools can be conducted with only a small tax upon the city people; while the country schools require high taxes to supplement the state's money. Therefore, with an unrestricted daily average attendance per capita from the state, the very object of a state contribution, viz., the aiding of the poorer school districts is, to a very great extent, defeated, and the children of these poorer school districts are deprived of their just shares of the benefits of the state's money.

If, however, it were decreed that only when its daily average attendance shall equal or exceed 90 per cent. of its school-census children, shall any county receive any state aid, and that only when that attendance equals or exceeds 95 per cent. of its school census, shall that state aid be a certain maximum—in that case, I think, the school authorities of the large cities would be stimulated, if any stimulation be needed, to increase and keep up their daily average attendances. In the large cities, I take it, most of California's 75,000 children who attend no schools are to be found. And these city children, it appears to me, are just as dear and just as much objects of solicitude to the state of California as are the children of the country-school districts.

In such a scheme it would be necessary, of course, to credit to the public schools, as per-capita recipients of state aid, those children who attend private schools. But as these children are confined almost entirely to the large cities, and as the state desires to see all its children attending some school, public

or private, no injustice of any very great moment would be done to the country children, certainly none to the city children.

Such a scheme would so regulate the distribution of the state's school funds that the teacher would be, in effect, the prime basis upon which the state school moneys are distributed; while, if the theory be correct that daily average attendance, as a partial basis for state aid, does encourage school attendance, it would also spur on the local school authorities to increase and keep up that attendance to the greatest possible practical maximum.

Under this scheme we would find, I think, that the country school taxes would not differ so radically as has been the case in this state, where the poorest county, in order to support its short-term, rather poor schools, with poorly-paid teachers, was compelled to levy a county school tax of fifty cents, the limit allowed by law; while the richest county of the state was able to run its much better schools more weeks in the year and pay its teachers much better salaries, on a county school tax of six cents. It is true, of course, that the cities, because of their congested populations and their greater wealth, will always be able to run their schools cheaper than the poorer, more sparsely settled country counties can run theirs; but, under the scheme here proposed, the difference would never be that between a tax of fifty and one of six cents.

As the prime basis of state aid would be the teachers this scheme would tend to equalize teachers' salaries thruout the state, not by decreasing those of the city teachers, but by increasing those of the country teachers. And this, I take it, is a consummation devoutly to be wished, along with a number of other things which would also tend to improve our public schools.

I freely admit that this paper is neither a scientific nor a complete answer to the question, "Public School Finance—What next?" Nor ought you to expect, from an educational layman, a scientific, an elaborate, or a complete answer to that question. The above is the notion of an earnest lover of the public schools—one who desires, with all his heart, to see them bettered in every possible way—one who, altho a layman in the practical operation of school matters, yet has had some little connection with the practical side of school finances. And my conclusion is that the best thing that the National Educational Association can do toward the "Next" is to see to it that, if practicable, in every state of the Union, a commission, official if possible, non-official if necessary, be organized to go over the constitution and laws of each state, to ascertain in what way the state, county, city, and district school moneys are distributed and used, and, applying to those methods the corrections deemed necessary by the most advanced and scientific school financiers of the country, endeavor to have those constitutions and laws properly amended. In other words, I believe that the answer to the question, "What Next?" consists in agitation looking to the reformation of school finances in each state, for the people, by the people of each state; and that the first thing to be aimed at is the proper, equitable and economical use of the state's money already set aside for the use of the public schools, rather than any attempt to

increase the amount of state money so used. An increase of state aid will be, I think, a proper subject for another "What Next?" after this one has been properly dealt with.

DISCUSSION

F. A. Fitzpatrick, Boston, Mass.—The Committee on Taxation, in investigating this matter, found an interesting state of affairs. They found that the teachers' salaries ranged from about 70 to 75 per cent. of the entire school-fund appropriation, except in those localities where they had little, or comparatively little, fuel to buy. Where the teachers' wage fund was proportionately larger. We also discovered that fifty years ago the teachers' wage fund amounted from 90 to 94 per cent. of the entire school fund, which, I think, demonstrates a very essential fact, to be borne in mind when talking with taxpayers; and that is, that the teachers are not getting a larger percentage than formerly, of the entire school appropriation, but, in fact, a very much smaller percentage.

I take it that when a school board has plenty of money, there is little trouble in getting adequate salaries for teachers. So the teachers' salary question resolves itself into the taxation question.

In the West where they build their school buildings from the proceeds of sales of bonds, and do not have to take care of that immense expenditure immediately but can spread it over a series of years, the effect of that expenditure is very different from that in a city where they are compelled to pay all of this money at once out of current funds raised by taxation for the year. If all of the departments of the city are following a like course, you are going to push the taxation rate very high, and make it difficult to secure adequate remuneration for the teaching force. It is a singular fact that this margin of taxation is pressing closely upon the margin of production, not only in the United States, but in France, Germany, and England as well. The result of this pressure, of course, is very apparent and need not be mentioned here.

I think that our public-school expenses are bound to increase. Our building expenses are bound to increase because the public demand is for better and better schoolhouses. But, at the same time, our schoolhouses are no better than the residences which we are building, and in most cases they are not nearly so good as the prisons, the penitentiaries, the courthouses and the city halls. Naturally you cannot have children going from the average homes to school buildings that are inferior in every respect to their homes. Then, too, in most cities it is now the policy to build the best schoolhouses in the poorer residence sections of the city.

In any wise administration we must be prepared to show people that we are not wasting money. The question of economy and retrenchment must be carefully considered. It is not wise administration to plunge into expenditures which cannot be maintained upon the same plane; expensive buildings which will cost thousands and thousands of dollars to equip and maintain them. If school expenditures are pushed beyond a reasonable point it is almost inevitable that the teachers' wage fund will eventually be affected. And these excessive expenditures can grow in many ways. They can grow by the establishment of kindergartens and primary schools, exceeding requirements. They can also grow by the expense attending too much supervision; and too much supervision is just as bad educationally as too little supervision.

Another point to be noted in this matter of teachers' salaries is the difficulty of securing and holding competent teachers unless the salaries are adequate. If the salaries are insufficient, a large number will avail themselves of better opportunities in other directions. In this regard, however, we are no worse off in school administration than the managers of street railways and of other commercial enterprises; for just as there is a great shortage of competent teachers to fill vacancies, there is a shortage in every other line of commercial activity. And this is for the very same reason—the prosperity of the country. When the

country is prosperous, the better grade of labor is being sought out, and is being pushed into other and higher and more remunerative employment. Today we are experiencing this condition of things in this country to an unparalleled degree. We want to have our teachers paid more, or at least as much as the street-sweepers of the city, and we want to have them able to live in the society in which they rightfully belong.

J. M. GREENWOOD, Superintendent of Public Schools, Kansas City, Mo.—There is just one thing on this subject to which I wish to call your attention for a few moments, and that is, how much money can cities and towns put into their schoolhouses and still retain the confidence of the people. I think that school boards generally who insist on putting up such expensive buildings, ought rather to make their buildings solid, substantial, very plain on the outside and very attractive on the inside.

When I went to Cincinnati two or three months ago I saw a building that cost $220,000, a twenty-two-room building with a large hall in it as wide as a street, and they spoke of having other new buildings that would cost about $8,000 per room. The question is: where are they going to get all the money, and will the people be content to supply it?

When the Moseley commission was in this country they wondered at the great display of buildings and the large expenditures entailed and the comparatively small amount of the total expenditure that went to teachers' salaries. Here is a question for us to think about. There is hardly a city in the United States today that is not piling up a debt and increasing it rapidly. I am not quite sure that school expenditures are not being pushed too far in many localities. I think the real thing in the school is not the equipment of the building, but the teachers. We want good buildings, substantial buildings, buildings that will last for a long time, but with the kind of buildings I have in mind the pupils would advance just as rapidly in their studies. We have not solved everything by any means. In ventilation we are still experimenting. It is a question whether there is not some danger of going too far in the way of magnificent structures similar to club rooms and other buildings of that sort, while we are paying our teachers meager salaries. Of course, I know that in many of our cities, and in many of the states, money can be raised for school purposes readily.

The superintendent should be a kind of financial expert who would save the board from itself at times.

There should be a far-seeing policy in erecting new buildings, purchasing sites, and replacing old buildings by new ones. We should see to it that they are made comfortable, that they are sanitary, that they are pleasant places in which the children can do their work. But there are two important elements, and I agree with Mr. Fitzpatrick in this: erecting buildings, furnishing them adequately, but not extravagantly; and the other is in paying the teachers adequate salaries.

Cities grow in different directions. When I was here five or six years ago the Los Angeles that I saw was entirely different from the city that I see today. Probably the Board of Education, all practical business men, with all of the experience that they then had combined with the wisdom of the superintendent could not tell when they built a school house in a certain portion of the city that the time would soon come when that part of the city would be business property. We find such problems as these coming up everywhere in all cities.

In the town in which I live, where a few years ago were the largest schools, today the attendance has fallen off very decidedly. Some of these schools have only 50 per cent. of the enrollment that they had ten years ago—due entirely to the way in which the city has grown.

One thing that I would insist upon is this, and it may be simply a word of caution: The men who compose school boards generally serve but a short time and many of them never get a clear conception of the system as a whole nor an understanding of certain things which should be done, to such an extent that it enables them to say with confidence that some things should be done and that other things should not be done I would not

feel that it was safe to use eight or ten thousand dollars for each schoolroom unless in a very wealthy city, a city with plenty of money, where the people would not feel the expenditure to be a heavy burden. It may be, in the time to come, that we can afford things of that sort in all cities, but it is better to be careful and to build upon a safe financial basis. While prosperity reigns it is all right, but we do not always have prosperous times and it is far better to be on safe ground all the time.

W. T. HARRIS, Washington, D. C.—Assume that each state in our nation provide for public education in schools, making not only as states a general tax for education, but re-enforcing the general tax by local taxes in cities and villages, in counties and townships, in towns and districts—as the case may be. Assume this and you will assume your public-school finances.

Now, what should you do with the vast sum of money raised for schools in this country? You should build new buildings and improve their plans. You should select better lots and have larger playgrounds. You should have more and better furniture, better outhouses, better provision for light, heat, ventilation, and the general health of school children. You should pay better salaries to the teachers.

The United States pays 260 millions a year for its public schools, a sum equal to 26 cents on each $100 of true valuation of its wealth. The amount collected from each dollar has been increased from year to year at a rate of about 4 cents each decade since 1880. We should increase this expenditure by an equal or greater amount each decade because the more accumulated wealth there is the better able it is to spare for schools a larger tax on the dollar.

The per capita of wealth increases from decade to decade. For the United States it had reached $1,036 in 1890, more than three times what it was in 1850. This mere increase per capita would alone cause vast increase of revenues for schools without raising the tax on each dollar. But as a fact all sections of our country have increased not only in wealth but in the tax rate per dollar devoted to schools.

The north Atlantic states, for instance, have been accumulating wealth for the longest time and have the largest accumulations, and yet they have increased the amount collected for schools on each $100 from 16 cents in 1880 to 27 cents in 1903. In 1880 their total valuation of property was seventeen and one-half billions; in 1903 it was more than double, being nearly thirty-seven billions. The south Atlantic and south central states increased their rates per $100, the former from 14 cents to 23 cents and the latter from 13 to 24 cents. The north central division increased its pro rata on each $100 from 22 to 28 cents for schools and the western division from 19 cents to 21 cents. The pro rata for the western division for schools has always been high. California was paying 21 cents on the $100 in 1880 and has raised this pro rata to 23 cents in 1903.

As wealth increases the amount pro rata for schools has been increased so that public-school finances are doubly augmented, deriving an increment directly from the increase in taxable property and a second increment from the higher rate of taxation.

It was vastly easier to pay a school tax in 1900 with an average per inhabitant of $1,235 of wealth than it was in 1850 when the wealth was only $308. The greater the wealth the greater the ability to pay high rates of taxation. The United States citizen of 1900 is represented by four times as much realized wealth and therefore can bear a burden of taxation equal to four times that of 1850 with greater ease, because the larger the income from vested property, the greater the tax possible, without stinting the individual in his necessities.

The property that goes down from one generation to the next consists mostly of the machinery of production, of improved farms, of city buildings and lots on graded and sewered streets, of railroads and steamships, of mines, of mills for textile goods and for iron and steel.

Supposing therefore that we have our finances for public schools, it remains for us to make a wiser and wiser use of them so as to increase the efficiency of the school system.

One of the important matters which concern the economy of resources is the twofold grading of salaries so as to recognize, in the first place, the improvement of the teachers thru experience and length of service, and secondly, the improvement of teachers that comes from assuming greater responsibilities and making extraordinary efforts to master difficulties. There should be a grading of salaries according to mere length of service with increase of fifty or one hundred dollars a year. In some cities salaries for the lowest grade of assistants begin at $500 or even $400, and increase at the rate of $50 or $100 up to the maximum, which may be as high as $600, $700 or even $800 a year.

If this graded increase is continued too long it brings with it a salary too high for that quality of teachers' work which does not improve beyond the stage of mere routine and which commonly reaches its highest level in the fourth year of service. After this period mannerisms begin to creep in, and in some cases an affected style of behavior, such as has been caricatured in literature as belonging to the pedagogue.

More important, therefore, is the second grading of salaries, based upon difficulty of work, upon high skill in teaching, or upon superior learning. At least one-fourth of the corps of teachers should stand out above the stratum of teachers who are graded merely by length of service. They should form a class apart which preserves the traditions of good teaching and continually purifies them.

The second grading of salaries starts with promotions from the time-graded lowest class and rewards the teachers of earnest character, skill, and successful instruction by promotion from rank to rank up to the directive power in the schools and the highest grades of salaries.

While according to length of service there may be a range of salaries from $500 for the first year to $700 for the fourth year—an annual increase of $50, the salary of this grade of teachers may range from $550 to $1,000 or $1,200. The first promotion may change the rank of ordinary assistant (perhaps called third assistant) to that of second grade assistant, receiving a salary of $100 a year higher than the rank and file, and with annual increase of $50, beginning at $600 and rising year by year up to a maximum of $860.

Next higher in rank would be a first assistant, beginning at $700 and rising to $900, and after that a head assistant with advances of salary of $100 each over the next grade below, beginning at $800 or $900 and rising to $1,000 or $1,100.

There should be no promotion except to an actual vacancy existing in the schools. There should be marked out in the beginning the important places: In the lowest primary a first assistant's place; then, next, a second assistant's place; and after that four third assistant's places; and then a second assistant; then four third assistants, and then for twelfth, thirteenth, and fourteenth teachers, respectively, a second assistant, a first assistant, and a head assistant, and over all these a principal of the school. This is an example of a graded school of fourteen rooms.

This second grading of salaried teachers, that is based on skill and learning, saves the schools from losing their best talent by promotion to better salaries in other cities. The reaction of this class of teachers on the class of teachers who rise only by time of service is very wholesome in preserving the professional spirit of the schools; and their good devices of instruction and discipline become the possession of their less progressive neighbors.

F. B. Cooper, superintendent of schools, Seattle, Wash.—I have just two points to raise, one in regard to the position taken by Mr. Greenwood, who is such good authority with me that I am almost inclined to hesitate over my own judgment when I differ with him. This is whether those cities which are spending the money necessary to secure good and well-equipped school buildings do not also pay their teachers salaries proportionate to their expenditure for buildings. I don't mean to say that any cities pay their teachers enough. While I do not know that such a comparison has been made, I think it would be found that generally a fair proportion of the gross expenditures is for teachers' salaries. I believe it is a fact, that cities that are spending the most money for

school buildings in order to have them rightly meet the needs of the school children, are also paying the best salaries for teachers.

Over-economy in equipment is wasteful of teaching energy. In our city an eight-room building costs about $30,000. If it were necessary to spend $4,000 more than this for a building in order to make every dollar spent for teachers' salaries worth one hundred cents, by giving the teacher everything that she needs to work with, to provide the ordinary sanitation and light and everything necessary to make the children do their best work, it would be an economical investment. This would mean that an outlay of the interest upon four thousand dollars at 4 per cent., or one hundred and sixty dollars a year, would give full value to the six thousand dollars a year paid as the salaries of eight teachers. That is an argument, I think, that no reasonable school-board member can withstand. When once the fact of building and equipment in its true relation is clearly understood then it is more likely that the teacher in her true relation will be understood and her salary will be the more fairly adjusted.

There is another thing which has been pointed out here this morning, and which ought to be figured out and published so that assessors and taxpayers may know it. I refer to a comparison of the increase in our wealth with the increase in the cost of school maintenance. A great disproportion will be found here. Why, this country has increased in wealth many, many fold, but it can easily be shown that the increase for school maintenance has not been at all proportionate to the increase in the country's wealth. And this, for the reason that so much of our wealth in this country is not touched by taxation—and the more wealth that is produced, the greater the proportion that is not so touched.

A corporation that I know of was formerly assessed for seventy thousand dollars. This year the assessor, who affirms that he must assess it righteously because he has taken an oath of office to perform that duty, assessed that corporation for five hundred and sixty thousand dollars. In this single city, the assessed valuation has gone from seventy millions up to one hundred and twenty-five millions in a single year not merely because there has been an increase in wealth, but because a just assessor has brought more wealth to view upon his books. This makes it easier for schools to enjoy a proper and legitimate support.

EDWIN G. COOLEY, superintendent of schools, Chicago, Ill.—Commissioner Brown has explained that we are to discuss the question "What Next?" as a supplement to the investigations of teachers' salaries of some three or four years ago. He believes that the matter collected then should be put into more definite form that it might lead to definite action.

I am not familiar with the situation in the country schools. I can speak for a city like Chicago. There, as in other large cities, we are struggling with deficient revenues. We have been increasing the demands upon the schools from year to year, accompanied by the dislike on the part of the taxpayers to submit to a higher rate of taxation. The taxpayers go to the legislature from year to year to fight every attempt to increase the taxation for the schools and for other city purposes. In Chicago they have had the best of us up to date.

In our large cities we are laboring with crowded rooms, with insufficient supplies of materials to work with, with salaries lower than they ought to be—certainly too low for capable teachers.

There is one thing that should, I think, receive attention. That is the increased demands made upon the common schools today. Twenty-five years ago the people paid far less than they do now for school purposes, and many of them cannot see why they should pay more at the present time. They fail to realize the tremendous increase in the demands made upon the schools. They fail to appreciate that the public is demanding better teachers, better buildings, better equipment, and a very much larger list of subjects must be taught. Some of the people seem to expect all of these things with an expenditure of the same amount of money that was formerly adequate.

One important line of work for us in the future is to educate the taxpaying body as

to the needs of the schools, as to the reasons why we must have larger revenues. We must point out that with the departure from the purely academic scheme of education there must go increased expenditure. The business man and the manufacturer of today are not satisfied with the old scheme of education. While we are somewhat uncertain as to just what the future will expect of us, we are sure that the day of the Three R's is over. Industrial and commercial education has come to stay.

These increasing demands cannot be met by mere manipulation of the finances of our cities. They cannot be met by changes in methods of supervising and handling the schools. They can only be met by larger expenditures of money. We must pay larger salaries, we must continue to equip our schools better and better, and we must do this in the face of protests against increased expenditures.

CARROLL G. PEARSE, superintendent of schools, Milwaukee, Wis.—I wish to say in connection with the remarks made by the gentleman from California, that I believe some regulation will be necessary if the basis of payment by the state is to be made on teachers and not on pupils. The problem of the consolidation of the schools, and the question of the conditions under which they ought to be consolidated, especially in the smaller communities, must be carefully considered if the basis of, or the distribution of, the state appropriations should come to be the number of teachers.

I agree entirely with what Mr. Cooley and others have said, that we do not have enough funds for the purposes of our schools. Teachers do not receive adequate salaries, and there are other things for which we do not have enough money. But, on the other hand, there are some things for which we expend too much money; and it seems to me that these matters should be looked into. Some classification should be made of the various kinds of expenditures similar to that made by the committee that went into this matter some years ago and those reports should be studied carefully by those charged with responsibility for school finances.

In some cases there is a waste of money on schoolhouses. Sometimes thousands of dollars are spent on elaborate balustrades and the decorations for the buildings, which add nothing whatever to their actual value for school purposes, but result from the fancy of the architect, or are suggested by someone without any real knowledge of the necessities of a schoolroom or of a schoolhouse. Very likely by concerted effort we might gain accurate knowledge of the needs of the schoolhouse; we might determine clearly the demands of the schoolroom in furnishings and equipment; we might "standardize" the schoolroom for the United States; we might "standardize" the schoolhouse. We might learn what are the standard essentials of a school building and how these might be had for the least expenditure of money; we might include every necessary thing that a schoolhouse should possess; and thus we might settle what a schoolroom should contain, and about what it should cost.

There is another point that is important in this connection. I refer to the varying proportions of money raised for school purposes, compared with money raised for other public purposes. This makes it incumbent upon those of us who have something to do with determining the amounts to be raised for schools and how this money shall be expended to inform ourselves by means of comparison between different cities. A few superintendents have been engaged in this work, and have gathered facts concerning the different sources from which the school money comes and the methods of raising the same. In some cities the money used for the schools is raised exclusively by taxation. The proportion devoted to this purpose varies in different places; in some 50 or 60 per cent. of what is raised by taxation is expended for the public schools, while there are other towns in which the proportion is only 20 per cent. Part of this variation is due to varying income from licenses and other sources. Where funds come from these sources, a less amount of the necessary money is raised by direct taxation.

These things need careful study by all who have to do with the collection or expenditure of school moneys.

Some years ago the Department of Superintendence of the National Educational Association made some such inquiry and an investigation of the various lines of expenditures in city schools, and embodied the results in a form for financial reports that was intended to be of assistance to city superintendents of schools in comparing the expenses of one city with those in another. It is a wise saying of the old scientist that "all science is comparison," and it is well that this be remembered so far as city schools are concerned and in the comparison of the expenditures of one city with those of another.

In order to compare expenditures a common basis must be had and it seems to me especially desirable that those of us who are connected with city schools should look up this report. It is in the proceedings of the National Educational Association, and can be obtained through the Secretary of the Association. Every city superintendent's office should contain a copy of this report, and whatever else can be had on classification of expenditures to enable him to see how the expenditures and the revenues of one city compare with those of another.

TOPIC—PROVISIONS FOR EXCEPTIONAL CHILDREN IN THE PUBLIC SCHOOLS

DISCUSSION

William E. Hatch, superintendent of schools, New Bedford, Mass.—It seems to me that this is one of the most important topics of the whole convention program. It may seem more important to me than to many, because I come from a district of New England, where we have a very large proportion of foreign people—people who are coming here every day by the thousands, and settling in our cities, especially in our textile manufacturing cities, in one of which I live. Their children furnish a problem which many of you who live in cities more remote from the coast do not meet, since, as I understand from the reports of the immigration commissioners, a large proportion of immigrants to this country, who have come here recently, are settling east of the Mississippi River, and in our cities.

Miss Julia Richman, assistant superintendent of schools in New York City, speaking of the great problems she has to meet in the schools there, said to me, "We have one problem that you haven't in Massachusetts." I said, "What is it?" She answered, "We have children of a great number of different nationalities to deal with." "But," I said, "in my city, we have children of at least fifteen or twenty different nationalities to deal with, who cannot, many of them, speak the English language at all." They are exceptional children.

But I imagine that the children who were in mind when this topic was placed on the program were those who were defective either in mind or body, rather than foreign born. Without considering illiterates, exceptional children may be placed in two classes. One class includes those who stand above the normal child—the exceptional in ability; the exceptional in mental acumen; those who are physically strong, who have a great vitality, who have great home advantages.

These children are as important a consideration as those who are deficient. From these children are to come the leaders of our country; and if any nation has not a large percentage of intellectually strong, morally strong, and physically strong people, that nation must degenerate. The percentage of strong, Christian leaders determines the position of a nation in the world, and that nation which has a small percentage in relation to its mass must certainly become bankrupt morally, physically, politically, and economically.

J. H. Van Sickle, superintendent of schools, Baltimore, Md.—Without in any way seeming to undervalue the training of the delinquent and the defective, I wish to speak briefly of the training of exceptionally capable children.

In well-developed graded school systems, the needs of the ordinary pupils have been

pretty well looked after. We have ceased handling the pupils in masses and are dealing more and more with individuals; but exceptionally capable individuals are so few that it it is exceedingly difficult to deal with them in an adequate way in any graded public-school system. Pupils here and there who might, without jeopardizing health, accomplish far more than their classmates, being able, with comparatively little effort, to keep pace with the rest, are satisfied and fail to develop the powers which are latent in them. While the average and the less capable pupils are gaining the ideal of hard work, these few are gaining the idea that all things can be had without effort, or with little effort. This idea is apt to follow them through life, and to make them really less effective than some of those of smaller natural gifts who have gained the habit of intense application.

For the last six or seven years, in Worcester, Massachusetts, and for the last five years in the city which I represent, there have been selected here and there, from the sixth grammer grade, pupils who show unusual capacity. With the consent of their parents, these pupils have been gathered together into convenient centers, and under teachers more than ordinarily capable, these few picked pupils have been allowed, while continuing the regular grammar-grade work, to begin some of their high-school studies two years before the ordinary time of entering a high school. They go to the high school with one year of Latin, with a year of either French or German, and with a year of English to their credit, and accordingly they finish the four years' high-school course in three years. The saving of a year's time is important, but the most important consideration, to my mind, is that they learn to exercise their exceptional powers instead of settling down into contented mediocrity.

J. F. MILLSPAUGH, president of State Normal School, Los Angeles, Cal.—Theoretically, there is an average child. Those in every way better endowed than the average we call bright children; those less happily endowed we call dull. To thus classify children would be proper enough, if we used a fair standard in making it; but we do not. We assume a number of particular qualities as desirable, group into a class the children who possess them, and call that class the standard by which to measure other children. We have inherited a belief in the efficacy of a certain curriculum of studies. These studies were originally selected because they were adapted to the needs of the one class of children—the other classes were not supposed to be worth choosing studies for. For generations we have been using this curriculum as a means of standardizing our children. Now this is just as sensible as it would be to adopt *trotting* as the sole standard of worth in a horse. We should then be obliged to condemn as worthless the heavy Clydesdale because he cannot trot as fast as Maud S. The truth is that the Creator has a place, a useful, honorable place, for every type of human being that he has created, and we have no right to use an offensive term in classifying any individual because he differs from some one else whom it is the fashion to think more worth while. The test of worth should be: how well does one perform the part for which he was created, not how well can he perform the part for which someone else was created. We have been trying for some years to give the so-called exceptional child a chance; but we have not ceased to try to make something out of him for which he was not created. The exceptional child that we call dull has been forced to take a program suitable for the exceptional child that we call bright. The result has been ruinous to the dull child and harmful to the bright child.

What we need to do is squarely to face the facts. Let us differentiate our school curriculum in such a way as more nearly to meet the needs of all classes of ability. We are doing this to some extent in high schools; we have classical high schools, English high schools, manual training high schools, commercial high schools, polytechnic high schools. Let us carry the plan down into the grades in a still more thorogoing fashion. Is it impracticable to have schools built upon the truth that some children have a native endowment of one kind; others of another kind?

This would not mean educational neglect of any department of the being, though it might shatter some of our notions of an all-around training. We could reasonably hope

that it would give us a larger number than we now have of well-trained men representing all types. It would not cheapen education, but enrich it.

L. E. WOLFE, superintendent of schools, San Antonio, Tex.—I like very much what Mr. Millspaugh has said. When you say that a certain pupil is dull, and that a certain other pupil is bright, you should base your statement upon something fundamental. We have been accustomed to base our statement upon the traditional course of study. In this traditional course of study the great thing is to interpret the printed page; but is there not something more fundamental than this ability; namely, the ability to render service to society? It seems to me that the most fundamental thing is service to the social unit. This service may be in various fields—in the field of books, in the professions, in business, in mechanical construction, in agriculture. When we make the course of study as many-sided as the capabilities of the pupil and the industrial demands of life, we find that many pupils classed as dull under the traditional course of study cannot be so classed under this modern course of study. The traditional course of study has been shaped largely to prepare pupils for the professions and for leadership in business, and not for a many-sided social service.

If this question be looked at from the standpoint of humanity, society owes to each individual an opportunity to develop the best that is in him—to prepare himself for a maximum of social service. If the question be looked at from the standpoint of enlightened self-interest, it is the highest interest of society to train each of its members for a maximum of social service. The solidarity of society is so fixed and the laws governing this solidarity so inexorable, that society cannot escape responsibility for the shortcomings of any one of its members any more than this natural body can escape responsibility for the weakness of any one of its organs.

Not only is the traditional course of study peculiarly adapted to a comparatively small number of pupils, but the teaching force of the past without exception, and of the present with few exceptions, has been composed of those who were adapted to the mastery of the book course of study, and therefore lacked appreciation of those natural gifts in the pupil which make for achievement in the field of practical endeavor rather than in books. In fact, the great army of women teachers so excelled in books during their school days as to be relieved by their mothers almost wholly from domestic duties. Is it likely that women thus brought up would have a due appreciation of talents that do not go to the mastery of books? In like manner, the boys who have become school teachers are usually inferior to other members of the family in mechanical skill.

F. A. FITZPATRICK, Boston, Mass.—If I interpret these remarks correctly, the impression that I get is, that it is very difficult to tell whether these exceptional children are very exceptional or not. We don't want to exclude any of them. We don't want to bar out the child who is a botanist, or the child who is a baseball player; we want to get out the best that is in them just the same. Without doubt, at its present stage, this is a very difficult problem, of which we are just entering upon the threshold of discovery.

We know that the difference between men and women in this world is not a difference in intellectual power; it is more largely a difference in will-power, and this is especially true with children. We know too, that school tasks are so small that any child can accomplish them, provided he has the right stimulus. In other words, the work of the eight grades can be completed by any child of eleven or twelve years in two years; and there are many instances of boys of twelve or thirteen, of fifteen or sixteen years who have done this work and graduated from college in seven years.

What we want, as Mr. Wolfe and Mr. Van Sickle have indicated, is to see that these children have the stimulus which will react upon them. Of course you can't always tell about that. Phillips Brooks was an ordinary scholar at Harvard. He had no love for athletics; he had no fondness for the prescribed study; he did not enter into the literary societies with any interest; he had no record of excellent scholarship. He did haunt the library. He made few acquaintances. When he was graduated from college, according

to a time-honored custom in Boston, his friends secured for him a position in the Boston Latin School. Within a few weeks, complaints began to arise about him—that he could not hold the boys; his disciplinary powers were weak. He was forced ultimately to resign because he was incompetent to handle that school. Yet he became one of the greatest leaders of men of his generation. Now, of course we could not predict what Phillips Brooks would become.

When you begin to compare people, you cannot tell whether one will enter the great world-life from the standpoint of poetry, or whether he will enter from the standpoint of mathematics, or whether he will enter it from the side of a novelist, or from the side of the engineer, or from the side of the orator. Who could have said that Michael Angelo, or Victor Hugo, or George Eliot, or Homer, would be greater than others?

What we want to do is to avoid, by our routine and our prescriptive ways, the destruction of this budding capacity. The hope of a democracy is in its leaders. Leaders are of such value to any community that their worth is inestimable. It has been said that in England, if fifty thousand people were to be taken out of the ranks of the best literary people, the leading statesmen, the leading physicians, the leading lawyers, merchants, engineers, inventors and transplanted to Australia, that England would drop in fifty years to a third-class power; and conversely, Australia would develop in a corresponding degree.

JOHN T. PRINCE, agent for State Board of Education, West Newton, Mass.—Thus far in the discussion, we have confined ourselves to the intellectually exceptional child. I would like to ask some members of the Council who have had experience, to tell us what has been done with the morally exceptional child, or the physically exceptional child. These defects are quite as important as the other, however important that may be. In regard to the treatment of delinquents in Massachussetts, I think we are as far advanced as they are in any state in the country; but I am convinced that we are working on wrong lines. We have good truant schools, and we are sending our children to them. But we are not getting hold of the right children, nor all of the children, nor are we getting hold of them in the right way. I believe if the school men would give more attention to this question, directing the charitably disposed people who are inclined to take up this question without the knowledge that they should have, we should do very much more than we are doing.

A DISCUSSION OF THE REPORT OF THE COMMITTEE ON INSTRUCTION IN LIBRARY ADMINISTRATION IN NORMAL SCHOOLS

FRANK F. BUNKER, ASSISTANT SUPERINTENDENT OF CITY SCHOOLS, LOS ANGELES, CAL.

This report of your committee clearly was written in the spirit of a desire to bring about a closer relationship between the public school and the public library. With this objective I am in the most hearty accord. There are two reasons why I want greatly to increase the interdependence of these two institutions.

Our textbooks, good as they are—and they never were so excellent as now—can never be more than compendiums of the facts and general notions which the writers consider essential. The space limitation of any text is such that it is impossible to include that wealth of detail and picturesque incident which is essential to interest as well as to a clear comprehension of the point under consideration. For instance, to put a pupil in any sort of sympathetic touch with a foreign country, with its agricultural, industrial, and climatic conditions;

with its picturesque and historical features; with its modes of life, it is necessary that the child should receive his impressions in concrete form, and chiefly in mental pictures which he can clearly visualize. It is not necessary, neither is it desirable, that the pupil should remember all the details which have to be presented in order to get a given picture; indeed, with most of us, in time, such details fade from consciousness, leaving in their stead only a general feeling, a sense of perspective. But since concrete pictures are the only materials out of which generalizations are fashioned, it follows that a mass of concrete and related detail is necessary if we would have the child understand the general statements which he finds in his text. It is true that one cannot put a general conception, a vague term, an abstract definition, an abstract idea or notion, into a child's mind, and have him hold this until he gets old enough or gets experience enough to clothe it in its proper image. If he holds it at all, except thru verbal memory, he holds it because it is an image. The range of information in any field of knowledge is so vast and so varied that a textbook which would include the concrete material necessary to creating essential images clearly cannot be less than a library of books. Our texts are attempts to encompass this mass of detail within two covers. Of necessity they can be little more than a convenient outline of principles and generalizations, so abstract that picture-thinking from them is impossible. That schoolroom practice, which does not go beyond the text, can be nothing more than a system of memorizing words and phrases, because the body of material which is necessary to the understanding of the given generalization lies outside the text. The chief source of the supply of such material is found, obviously, in the public library, and the teacher who does not use the library freely for her own help and inspiration, as well as to secure material for the use of her classes, is without uplift. Permit me to say that in this I am speaking from experience, for the course of study for the grades in geography and history, which has been introduced in the Seattle schools during the past year, is based almost entirely upon material which is to be found only in magazines, in books of reference, and in the children' books supplied, most liberally, by the public library of that city. The results, in increased interest, thru the introduction of a fresh content coming to the children from outside the text, have been remarkable, as testified to, not alone by principals and teachers, but by parents who, with satisfaction, have recognized the vitalizing effect on their own children.

There is another reason why our schools should lean heavily upon the public library. Our work is weak indeed if it fails to inspire the student with an eagerness to extend his study beyond the limits of the particular school course selected. I believe it possible, thru readjusting the content of our cultural courses, and thru changing the methods of schoolroom practice, so to lay the foundations of culture as to irresistibly impel the young person leaving the public school to seek to broaden his education along the lines of the interests which he has already established. The school that does not bring the student

to the realization that education is a continuous process, with no break when he leaves school, falls far short of its high purpose. In short, the pupil should be brought to see in the public library an institution where he can continue his education thruout life—a place to which he can go for intellectual and spiritual inspiration. The school is remiss if it does not prepare the pupil for the process of self-education, and stimulate him to desire it.

As to the desirability, then, of close accord between the public school and the library which I take to be the end sought by your committee, I am in the closest sympathy. In my own work I have tried earnestly to get the teachers and children into the library, and the library into the schools.

In attempting to secure the relationship which I want to see brought about, I have met two serious difficulties, both relating to the teacher's preparation, one having to do with her lack of familiarity with library machinery, the other growing out of her ignorance of children's literature, its nature, scope, and function.

I thought it impossible, in this day of progressive educational practice, to find any recent graduate of our normal schools in ignorance of the use of Poole's Index or the card catalogue; yet I find many who have never seen either. One would think it natural that, inasmuch as our normal schools are preparing their teachers to go out and educate children, about the first thing they would do would be to see that their students get a clear survey of the literature which has been written for children, and to develop in them standards of discrimination in the same. I am a graduate of one normal school. I was a member of the faculty of another. I know intimately the work of several others, and superficially that of many more. I have yet to hear of any normal school, either East or West, attempting to give its students any systematic work in the very field wherein the teacher ought to exercise her greatest influence. The San Francisco State Normal School is doing most along this line of any school with which I am familiar. However, the work there is limited to a training in the use of children's books which are supplementary to school subjects. But where I find one teacher who knows so little about library routine that it is to her incomprehensible, I find many more who have no notion what books children are interested in, or what to suggest when the parent asks for advice, or what kind of reading is available and should be secured to supplement the classroom work, in such subjects as science, history, geography, literature, and general reading. There are two difficulties, then, growing out of the lack of proper preparation on the part of our teachers, which must be met before the library can be used to its maximum by the school—the lack of how to use the library, and the lack of a comprehensive knowledge of the field of children's literature.

Beyond some four and one-half pages, chiefly a bibliography, the report of your own Committee on Instruction in Library Administration in the Normal Schools deals with the first of these only. The report is an excellent handbook of the elements of library practice. It is well arranged and clearly

written. A commendable feature is the selected lists of reading which it gives. I have read many of the references therein cited, and in most cases I find them selected with discrimination. As a convenient summary of valuable suggestions, to one who finds herself in charge of a library of whatever size, it is admirable. It also ought to be in the hands of every teacher. However, valuable as is the report in this connection, and as much as I am in sympathy with training teachers to use the library, I am opposed to the whole idea of introducing a systematic and formal course in library administration in the normal schools, because I believe, the end can be reached in a more economical and natural way.

The suggestions embodied in the report, in the main, can be grouped about two ideas: how to use the library and how to procure and care for the books which comprise it. As to the first, the only way a prospective teacher can learn to use a library is thru using it. It cannot be accomplished by a course of lectures on indexes or the card catalogue. Every normal school worthy the name has a considerable equipment of magazines, books on general and special subjects, and reference works. If the work of the school is conducted in anything like a rational fashion, the students will have many topics to search out. Thru the real demands of the school, then, a working knowledge of a library will easily and naturally come. The securing of ability to use the library machinery in finding the thing wanted can be expedited somewhat thru an occasional talk given by the librarian or by some experienced person. But a series of lectures, or even a series of formal meetings, for discussion, if carried on without work in a library, would be hopeless; on the other hand, if the work of the school requires the use of the library, such a course would be unnecessary, I feel.

As to the training in the care of books, normal schools should in no wise attempt to duplicate the work of the library training-school. A library of any considerable size should be administered by a trained librarian. All the information which the care of a small number of books would demand can be given, I am sure, without a formal or long-continued time being set apart for it. A few talks by the librarian of the school, together with an examination of an organized library, and supplemented by placing a copy of the report under discussion in the hands of the student, will surely give all that general information about this phase of library work that any normal school would be justified in requiring, inasmuch as the function of the normal school is not that of training librarians, and inasmuch as only a small percentage of its graduates will ever have occasion to assemble a library beyond that containing a few dozen books. In short, the lack of familiarity with library routine which I have noted in regard to my own teachers, I fully believe can be adequately met thru the regular work of the normal school, supplemented by occasional talks by the school librarian, and without the necessity of setting apart a regular time for a formal course in the matter.

The other lack in the teacher's training to which I have referred presents a

more serious problem. It is a problem which can be met only thru continuous and systematic work, well organized and continued thruout the entire normal-school course. Such a course in children's literature as I would have given in the normal schools is beginning to be shaped up by those training-schools which prepare students to take charge of children's departments in public libraries. Miss Frances J. Olcott, who superintends such training in the Carnegie Library, Pittsburgh, is doing a work which offers many suggestions for a course in children's literature in the normal school. Indeed, most of the topics which I shall enumerate as deserving a place in such a course were suggested to me thru an examination of the notes of one of Miss Olcott's students, Miss Blanchard, now in charge of the children's department of the Seattle Public Library.

Such a course should comprehend:

1. A general survey and discussion of children's fiction, with an examination of such groups as, children's classics; standard books of fiction; popular fiction, comprising books which can be used to guide boys and girls who have been reading trashy books, to a better class; the "yellow" class, comprising weak, sensational stories, those thoroughly bad, those low and vile, and the trash for girls which, for the most part, is founded on adult emotions.

2. An examination of children's nature books to form an acquaintance with the chief types, such as those which are true and will last, and hence with educational value; those which are neither true nor beautiful, such as Jack London's; those which are simply romances, but yet which teach children to treat animals kindly, as Ernest-Thompson Seton's books; and those which are untrue, but harmless, because not vicious, as perhaps the stories of Dr. Long.

3. A general survey of the field of folklore, mythology, and fairy tales, in the light of their treatment for children.

4. An examination of the adaptations of the classics which have been made for children, treating particularly those coming from the Greek, Roman, Hebrew, and Anglo-Saxon literatures.

5. An examination of technical books, written for boys and covering such fields as chemistry, electricity, astronomy, geology, and shopwork.

6. An examination of the books on history and geography written for children. There is in this field a rich lot of material. The teacher who is not familiar with it and who has never considered its scope and the uses to which it can be put in the classroom has not only missed a great opportunity for vitalizing her work in these subjects, but also for bringing her children in working touch with the public library.

7. A consideration of poetry for children, along some such lines as, folklore in verse; standard poetry; collections of poetry for children; and prose renderings of English poems.

8. An examination of the magazines which are published for children, together with a discussion of the lists of such magazines, which are used in the children's department of various libraries.

9. A discussion and examination of books which are written for very little children, such as, fable and animal stories; fairy tales and legends; Mother Goose rhymes; customs of different peoples; biographical accounts; and one-syllable books, and books which have been rewritten.

10. A consideration of what books a child under twelve should have in his own library.

11. A discussion of what books and stories all children under fourteen should read, and also with what literary classics every child leaving our schools should be familiar.

12. Determining a small list of books suitable for girls and women, covering such topics as, general counsel, science, fine arts, literature, history, travel, biography, fiction, and the household and its activities.

Undoubtedly there are other topics equally as valuable as these which I have suggested. I have not meant this enumeration to be exhaustive, but rather suggestive, and I have given it to show you what kind of training, in my judgment, the normal schools should be giving, in order to satisfactorily meet the difficulty which I have pointed out. If every teacher leaving the normal school could get such a familiarity with children's literature as a course of this kind would give, I am sure the pupils of such teachers would get a tremendous impulse toward self-education and would see in the public library a means for satisfying it. A teacher so prepared would be able to recommend wisely a course of private reading for each child in her school, she would be appealed to by the parents of her pupils for suggestions regarding books to be purchased for the home, her advice would be sought by the less well-prepared librarians of her community, as well as by boards of school trustees; if need arose she would be prepared to take the initiative in establishing a village or community library, and besides, her own schoolroom work would be vitalized thru the fresh content which such a teacher would inevitably introduce. Thru some such course as this she would prepare herself to exert an influence for good which would extend far beyond the walls of her school. A course of this kind, to my mind, would be of far greater value to the prospective teacher than one limiting instruction to the ordering, accessioning, classifying, labeling, binding, and charging of books. Indeed, in such a course as I have suggested, the really necessary information on these points could well be worked in incidentally, and yet naturally.

In asking me to discuss the report of the Committee on Instruction in Library Administration in Normal Schools, the commissioner of education expressed the purpose of this discussion in the following words:

> The special object which we have in view in these discussions is to determine, not only the intrinsic value of the report, but what steps should be taken next by the Council or the Association, to continue the same investigation, or to carry into effect any good recommendation which the report may contain.

From what I have said, you will see that I believe the report to be one of great value as a summary of the elements of the best library practice. I believe a copy should be in the hands of every normal-school librarian, and also in that of every actual and prospective teacher. I would earnestly recommend that the Council or the Association take some definite action to secure the accomplishment of this. I would not, however, favor urging the report on the normal schools as an outline of a formal and systematic course of instruction, to be given by them in library administration, not because I would criticize the report, but because I do not believe that such a method offers the best plan for securing the results desired. I would further urge, in line with the

objective, as expressed by the president of the council, that steps be taken by this body to secure a report, made with the same care as the one under consideration, on a course in children's literature for normal schools.

DISCUSSION

JAMES M. GREEN.—I would like to ask the gentleman who read the paper if he will explain what he means by "pupil." I think the relation between the school and the library depends very much upon the age and grade of the pupil.

MR. BUNKER.—The only point I was discussing in the report was in the way of suggesting that a course in library administration be given in the normal schools, for the use of the student teachers and the people who are in the normal schools preparing to become teachers. I was discussing the problem from that point of view. It seems to me, in view of the great weakness of library education in the normal schools, that if some certain course as I have suggested, dealing with the general field, as children's literature, were adopted, it would be far more practical and more valuable. Some such training as this, it seems to me, it is necessary that the teacher should have in order that she may give the best advice when she gets into her own schoolroom, and that she may intelligently direct the reading of her pupils along those lines that she herself has selected from a careful and rational survey of the whole field of children's literature.

A MEMBER.—My experience with children, especially boys, is that they do not like to read the books which the library directors and other people select for them. They like books of a different kind. Many of them won't read the books selected for them except under compulsion.

MR. BUNKER.—That is because most of the librarians who are now selecting books for children are doing so along the lines of the mechanical administration, and have not had that general survey of children's literature which will enable them to make selections according to the various stages of the children's development.

MR. GREEN.—I think that one other reason is that librarians never read books.

L. E. WOLFE, superintendent of schools, San Antonio, Tex.—I have felt for a number of years that it would be a great thing for the National Council, or the National Educational Association, to undertake a systematic examination of books for children, in the light of the best scholarship in various departments. List after list has been prepared, but when you come to examine the books that deal with astronomy, that is, attempt to make it elementary, or with geology, you frequently find that the books that are excellent and are in conformity with the best scholarship are not selected. The recent discussion of the president of the United States and others has brought forward that idea somewhat prominently in regard to nature-books.

TOPIC—THE SHORTAGE IN THE SUPPLY OF TEACHERS

DISCUSSION

JAMES M. GREEN, Principal, State Normal and Model Schools, Trenton, N. J.—The subject as announced implies that there is a general shortage in the supply of teachers. In the part of the country from which I come, this is distinctly true, and has been true ever since the standard of teaching has been raised.

At one time a person might become eligible to teach in any position by passing a very superficial examination in a few subjects, mostly of an elementary character, before a township, county, or city board of examiners. While this was true, there were more applications for positions to teach than there were vacancies. But the leading educational influences took the ground that teachers' certificates should be tentatively graded, as the schools were graded; a high-school certificate to cover the common pedagogical subjects and at least the high-school subjects; an elementary certificate to cover at least the elemen-

tary subjects; that a permanent certificate should cover at least the full scope of public-school subjects; and that all persons who taught should have a good general education, and that those who taught in the high schools should have a college education or the equivalent; that the examinations should be set by the state, and should be fairly uniform; that persons to enter normal and training-schools should be high-school graduates. Nor was this all. The teachers were asked to make their teaching practical. Their chemistry must be the chemistry of the factory, their physics must be the physics of the machine shop, their drawing must meet the demands of the architect and of the arts and crafts, and their bookkeeping must be the bookkeeping of the counting-house. This proved to be popular ground and prevailed, but with its establishment the number of applicants to teach began to fall off relatively, particularly for the higher positions.

While our theoretical standard is the trained teacher, we are still obliged to maintain our tentative system and admit to teaching thru the elementary examinations about two-thirds of our teachers; about one-third coming through our normal and training schools and colleges.

The number of qualified applicants for the higher grade of positions has become so small that it is not an uncommon thing for the superintendents and principals of the larger schools to spend from one to two months of the year making inquiries and traveling about in quest of teachers. This demand has called for the building of additional normal schools, but even this does not promise certain relief, as the number of applicants for admission to the normal schools is falling off relatively. Particularly is this true of men. The normal school of my state has about ten men in an enrollment of five hundred students. This proportion is about one-tenth of what it was a few years ago. What is true of my state is true of the other states similarly situated.

There seem to be two apparent reasons for the growing shortage of teachers: first, the long and difficult preparation necessary to meet the standard, and the consequent expense; second, the readiness with which young men living near our large centers of population can secure more lucrative positions. Many of our business schools and departments are now offering comparatively short courses of study, the graduates of which can readily secure positions in the cities and towns at a fairly tempting beginning salary with promise of promotion. It would seem almost self-evident that the remedy is the increase of the pay of the teacher. Our salaries have not been adequate to the cost and the old law of supply and demand is asserting itself and it must be met on a financial basis.

The compensation for teachers has no doubt been influenced by that of Germany and the older countries of dense populations, also by dependence upon the missionary spirit. This, however, is America. The conditions of the denser populations do not obtain here, and there is no just call for missionary service. The age is enlightened. The man who wants his child educated must bear his full share of expense.

I have no fault with the high standard of teaching I hail and welcome it, but I believe if it is maintained educators must thoroly promulgate its economic requirements. These must be acknowledged and met by the people, both by increasing the salaries of teachers and by further decreasing the cost of higher education for teachers by additional state aid.

According to our old political economists there are three elements that influence the price of labor—the respectability of the employment, the permanency of the position, and the wages. The high standard of the teacher insures his respectability and will promote the permanency of his employment, leaving the raising of the salaries as the one thing needed.

I. C. McNeill, superintendent of schools, Memphis, Tenn.—It is the experience of school executives in all sections of this country that there are not enough good teachers available to meet the demand. In every system of public education the problem of eliminating weak teachers is met by another very serious question: Where can boards of education secure well-trained, thoroly equipped persons, with the graces of character

and executive qualities the service of education demands, to take the place of the negative, inefficient, or poorly trained who should be excused from service?

The honorable president of this Council has felt the need of a study of the question of the shortage of teachers, and so have other members of this body who occupy executive positions in the administration of school affairs. I am inclined to think that steps will be taken to bring about a comprehensive study of a topic of such vital interest to the life of the nation. The work of the teacher is with intellectual and moral forces. Because of the slowness of the processes of mental and physical growth and development, the real worth of one who stimulates, guides, and controls the activity of children and youth is not, in many instances, quickly discovered. In time, however, the efficient teacher who builds for the life that now is, and, in my belief, for a life to be, is recognized but too seldom in a way to encourage others to render the fullest measure of service which they have the capacity to give.

The profession of teaching is not attractive to many men who know too well that the schoolmaster is not generally held in high esteem in a worldly sense by business men. "He views the question in the schoolmaster's narrow way," is said so often that many a capable young student, wishing to be thought "a person of affairs" and a "man among men," turns away from the preparation for teaching and seeks equipment for other lines of effort. The argument which has come down as a persistent element from the Greek philosophy that we grow to be like the things with which we are brought in sympathetic contact makes its appeal and turns the ambitious young man away from a profession that compels the closest association with the immaturity of childhood.

The American people are thoroly aroused on the scholastic and professional training which the teacher, regardless of sex, should have. The interest of the home is the most vital one. No teacher with all the graces of a personality which attracts and charms, even with a college training, is held fit to teach unless he or she is able to stimulate, guide, and control boys and girls so that they will like school and put forth persistent effort *to do* and *to be*. The pay the people, as a rule, are willing to give for such expert service, the only kind of service profitable in a school-room, has not kept pace with the professional standards erected. Consequently, a comprehensive and adequate professional training does not offer the same attractive returns to the teacher that many other lines of technical education present.

In many sections of the nation, especially in the South, women belonging to the oldest and most aristocratic families become teachers. They hold their places in the social life of the community and very often live at home. Their splendid womanhood makes appeal to the good sense and affections of single men. The story is too well known to be told here. Splendid teachers, noble and beautiful women, often lay aside work of the schoolroom to grace a home and assume the duties of wifehood.

Other considerations, I regret to admit, are far reaching in causing a shortage of teachers. The uncertain tenure of position has influenced many a noble teacher to turn from the most important work of the age, that of public education.

The baneful workings of machine politics and politicians put many splendid teachers out of business. They become disgusted with the unfairness and uncertainty of the outcome where the interests of the children are counted as naught against the interests of parties or party leaders. We have seen some of America's noblest educators belittled and besmirched because they would not bow to the dictates of "gangs without a conscience." Many have been compelled in order to save their self-respect to seek labor in other fields of human endeavor. There is hardly a man of prominence in the work of educational administration who at some period in his professional history has not felt the force of political organizations standing against the highest interests of America's future citizens. But some politicians are noble men who stand for children's rights. Such men guide political movements aright and insist that the American public schools shall be free from all elements that tend to destroy their usefulness. There are great centers in the

United States where public sentiment insists that the best teachers, the best schools, and the heartiest good-will toward education are to be permanent. God speed the time when good teachers with professional training and character will feel secure in their positions and reap deserved earthly rewards for duties well performed!

If this body, by any means at its command, can bring more fully into the active consciousness of the American people the tremendous importance of educational service, the shortage in the supply of teachers will gradually grow less and less.

OLIVER S. WESTCOTT, principal of the Robert A. Waller High School, Chicago, Ill.—There seem to be a good many complaints of shortage in the supply of teachers, but I have not heard any suggestions as to remedying the difficulty, except to make the work attractive by raising salaries. It strikes me that method would be a round-about one, and likely to produce results only after considerable difficulty. I should like to make another suggestion, and that is, that you take out of the examinations for teachers, the immense amount of stupidity that now characterizes them. As an illustration, I have in my mind a man who went into an examination on the subject of Latin. He is a man who can write Latin accurately, write letters in Latin, he has an S. D. T. degree in the Catholic Church. He was taught all his Latin, and received his instruction in theology entirely in Latin. He goes into an examination, and he makes mistakes in not writing the right mark over an a or an e—some of you may remember that there should be a mark over the final a in the ablative case, first declension. He is marked down in Latin. He could instruct the examiner. A person is ashamed to go before such people as those who conduct and regulate the examinations in this country. Superintendents ought to get together and stop the practice. A teacher having earned a degree from a reputable college and having successful experience should not be subjected to the humiliation of passing an examination too often supervised by persons greatly his inferior in experience, scholarship, and executive ability.

CARROLL G. PEARSE, superintendent of schools, Milwaukee, Wis.—While there is a shortage in the supply of competent teachers, there is in every other line of employment a shortage of competent employees as well. In this respect, we are not so very much worse off than other people. There always was a shortage in the supply of first-class teachers; there never were enough of these teachers to go around; there are not now, and it is not likely that there ever will be. So, while we bewail our fate, we ought not to feel that we are so very much worse off than people in other lines of employment. We cannot now get, and probably during your life and mine, Mr. Chairman, will not be able to get, enough thoroly trained teachers. One of the essential methods for getting better teachers is to have in positions of responsibility superintendents and principals who can train teachers. If that art, the gentle art of training teachers, is adopted by more of our superintendents and more of our principals, we will have a much higher average of well-trained and efficient teachers than we now have.

One other suggestion for our normal-school people: There is a strong temptation for them to put the hall mark of their approval on all of the product of their training. If the normal schools will throw out some of the least promising of their applicants for training, we shall have better results in our schools. Some of the normal schools do cull their product and their diplomas are presumptive evidence of good preparation and the required ability; but there are some which ought to do a good deal more separating of the fit from the unfit than they do.

MORAL TRAINING THRU THE AGENCY OF THE PUBLIC SCHOOL

CLIFFORD W. BARNES, CHAIRMAN OF THE EXECUTIVE COMMITTEE OF THE INTERNATIONAL COMMITTEE ON MORAL TRAINING,
LAKE FOREST, ILL.

It was a well-deserved tribute which President Roosevelt paid to the teachers of America when he said:

> The most characteristic work of the republic is that done by the teachers, for whatever our shortcomings as a nation may be, we have at least firmly grasped the fact that we cannot do our part in the difficult and important work of self-government, that we cannot rule and govern ourselves, unless we approach the task with developed minds, and with that which counts for more—*with trained characters.*

In placing this emphasis on character development in education, no organization has taken a more prominent stand than the National Educational Association, and especially this Council. Quoting from a few of your own leaders, we read: "The end and aim of all education is the development of character;" "Education is growth toward intellectual and moral perfection;" "We wish to lift into prominence the moral character building aim as the central one in education;" "No school is efficient that fails to stimulate right conduct, the issue of which is character."

There was a time when to teach the three R's with exactness and skill was to do the full work of a public school, for the home, the church, and the wholesome atmosphere of community life could then be trusted to complete the circle of a child's education. But those days were long ago, before the cities began to swallow up the country, and the great corporations the small producers, and the closepacked tenements the cottage homes; before the fierceness of competition robbed men of their strength and deadened their souls, and transformed the pursuit of commerce into one of industrial war. Macaulay once said: "The Huns and Vandals who will destroy our civilization are being bred, not in the wilds of Asia, but in the slums of our great cities." But Macaulay never dreamed of a condition fraught with such peril as that of one nation receiving into its midst, by yearly immigration, more than a million of the poorest and least educated of foreign lands. The teacher, standing in daily contact with the pupil, has seen, as few others could, these general changes in social and economic conditions by reason of which parental authority has been weakened, religious influence lessened, and the child been forced more and more to become a ward of the state. It is not surprising, therefore, that with ever-increasing earnestness teachers, the world over, have endeavored to broaden the scope of school activity, and have discussed in all its phases this question of moral training and the development of good citizenship.

The result has been in some ways very gratifying. In America the ordinary rules of school life, such as obedience to authority, punctuality, good behavior, consideration for others, and the like, are being enforced with a new and higher

motive; there is a growing inclination to give incidental instruction in rights and duties; and several noteworthy attempts at student self-government have been introduced for the purpose of training in citizenship. The other day, in one of these self-governing schools, a "tribune" had occasion to correct some fault in a fellow-classmate. He called to his assistance two other officers, and together they soon brought the culprit to a state of proper contrition. Finally the "tribune" was heard to say: "Well, I want you to know that our class won't stand for that sort of thing, and if you do it again, you will have to git." Evidently there had been developed here something more than a proper sense of responsibility, more than obedience to authority, or wise judgment in correcting a fault; there had been developed an *esprit de corps* of the highest order, which could be used as a powerful agency for righteousness and moral training.

I had an experience, not long ago, which gave me a new realization of the extent to which music might be used for this same general purpose. Three hundred children from a single school had been so thoroly trained that they rendered with absolute accuracy and perfect expression the most difficult selections. Among others was the "Pilgrim's Chorus," from Tannhauser, and when to the thrilling chords of this glorious harmony they sang the words of a national hymn, one's very soul was stirred to reverent devotion and patriotic enthusiasm. As the principal, who stood near me, remarked:

> That helps to form good citizens, and when they leave here to make homes for themselves a few years hence, there will be in most of those homes the attractive influence of good music.

Decorative art as an agency for moral training is being brought more constantly into use, and good pictures on the schoolroom walls, by their visions of beauty, their appeals to ambition, and their outlook into a larger and fuller life, are having no small influence in the development of character. We have ample evidence that flowers, and vases, and a hundred other simple touches of artistic decoration are finding their reproduction in many homes which sadly need adornment. There was something to be proud of in this report which a principal gave me recently: covering a period of ten or twelve years, he had raised thru school entertainments, in order to buy pictures and works of art, something like six thousand dollars, and that, too, in a neighborhood of working-people.

Manual training, domestic science, and other so-called innovations in the curriculum of a modern school have received high praise for their practical utility, but when we note how well these studies serve to develop self-reliance, steadfastness of purpose, concentration of thought, constructive ability, and the like, together with a true sense of the dignity of labor, we are inclined to give them a new valuation on account of the good they accomplish in moral training. This sort of industrial activity has also a recreative value, which brings with it new power of application to bear upon the regular studies. One principal reports that by slightly lengthening the school day he has been

able to give each class an average of ten hours' manual work every week, and yet cover with excellent result the usual curriculum.

Here and there systematic attempts are being made to give instruction in hygiene, the care of the body, and such simple methods of helping the sick as may prove of use in the home. It is easy to see how clearly all this is related to the problem of good citizenship, and we are certainly coming closer to its wise solution when we recognize the relation which exists between truancy and malnutrition, bad behavior and defective vision, inattention and poor ventilation.

The architect is beginning to do his part, as never before, in making the school a powerful agency for the promotion of moral training and the development of good citizenship. Besides taking care that his building is sanitary, well lighted, and of attractive appearance, he is adding spacious halls, assembly rooms, gymnasiums, baths, and playgrounds, by means of which the school can readily become the social center of the community. Such conditions make it easy for the wise teacher to organize clubs among the students, which shall be both protective and inspirational, foster parental associations, which shall instruct and delight, and by these and other means develop a wholesome social life which shall bind the neighborhood to the school by a thousand ties.

It was once said of our greatest Teacher, that "The Word was made flesh and dwelt among us," and with a full recognition of the importance of this personal factor in education, many teachers of today are earnestly seeking to embody in themselves that knowledge, culture, and moral strength which they wish to impart to their pupils. Reading circles, travel classes, lecture courses, and other organized means of attaining this end are being utilized, but, most promising of all, the demand is steadily increasing for that kind of normal-school preparation which acquaints the teacher with child-nature, and familiarizes him with the various methods of moral training.

Generally speaking, systematic moral instruction may be said to have no place in our American school system, for it has only been tried to a very limited extent in a few small places; but some use is being made of the ethical syllabus, such as that issued by the New York schools, which affords the teacher a suggestive commentary on the whole subject of moral training.

Passing now to the other side of the water, and going in and out among the schools of Europe, one is immediately impressed with the fearless directness of moral and religious instruction. In Great Britain the first hour of the day is always devoted to the religious lesson, and teachers and pupils alike regard it with a pleasure surpassing that of any other period. This was the universal testimony to my oft-repeated question, and the reasons assigned for this feeling were generally these: "Keener interest in the subject," or "Closer sympathy between teacher and student." The work was never shiftless, and the atmosphere of reverence was always marked. A Catholic priest, a member of the school board in one of the largest Scotch cities, said to me that not for the world would he take the Bible or the religious lesson out

of the public schools; that it was the only teaching of the kind which many children ever received, for some of the Catholic parents were not good church members, "but," he added in conclusion, "I should like to cut out the Westminster Catechism." Since that conversation a catechism has been prepared by a joint committee of all the Reformed churches of Scotland which very largely does away with such just and natural criticism.

The recent upheaval in Parliament, incident to the Educational Bill, was not more indicative of denominational jealousy than of an intense desire on the part of the English people to make the Bible more effective for direct moral and religious instruction. Certainly the best work along this line which I discovered was done in the board schools, where the program favored by the Liberal party had long been followed. In these schools, selected portions of the Bible are committed to memory, such as the Commandments, certain of the Psalms, the Lord's Prayer, the Sermon on the Mount, the Parables of Christ, and with this as a basis, ethical lessons bearing on everyday student life are made the subject of joint discussion. In some schools this method is being reversed, and systematic moral instruction is being given with the Bible as the textbook. Either of these plans would have received the ardent support of such a man as Huxley, who, though an agnostic, always said that the best book in the world for the teaching of morals was the Bible. The great public schools of England have long been celebrated for developing character through the agency of the playground, but today some of the county council, or board schools, deserve almost equal praise for what they have been able to accomplish along this line. One of these schools, located in a slum district of London, has solved a truancy problem of the most aggravating nature by the skilful manner in which the teachers, who are all men, have made use of athletics.

In Germany one notes the large number of men teachers, the autocratic military spirit pervading the schools, and the separation, where possible, of boys and girls, all of which has a direct bearing on the subject under discussion. But that which is especially significant in the present situation, is the slow but steady movement towards greater freedom from church domination, without doing away with biblical teaching. Against the dogmatism of ancient creeds there has been a literal strike among the teachers, those of Bremen leading the way, and in various sections strong associations have been formed to further, or to introduce, systematic moral instruction. It seems to me that the ultimate outcome of this unrest will be a more unified school system, in which the Bible will be used, without sectarian bias, to teach those vital truths of religion and morality which our own Washington claimed to be "the indispensable supports of political existence and prosperity."

Despite my best endeavors the Magyar tongue was beyond my comprehension, but one day in the schools of Budapest, as I listened while a student led her class in prayer, with the heads all bowed and the eyes all closed, and not a sound to be heard but the voice of the leader, somehow the strangeness of that language disappeared and in my heart I understood. No child in the

schools of Hungary or Austria is permitted to be without religious and moral instruction, for at least two hours each week are set aside for this purpose, and the various denominations are paid to provide skilled teachers. A few weeks ago in one of our own public schools the principal pointed out an exceptional student. He had entered the second grade at the beginning of the year, because he could not speak the English language, but at the time mentioned he was leading his class in the sixth grade, and, stranger still, had been chosen by his classmates to the highest office in their student organization. On questioning the lad I found that he was a modest, self-possessed young Magyar, some thirteen years of age, who had been in the schools of Budapest when I was there. And then it all came back to me again—the prayer, the Bible study, the spirit of reverence pervading every classroom during the hour of religious instruction —and I could not help feeling a sense of regret that our American schools were not doing more to provide a moral safeguard for these children of the foreigner. Here they are in the midst of strangers, surrounded by unfamiliar temptations, eager to imitate us in language and customs, and in many of our largest cities, they see that great school system, which is for them the highest and best expression of the nation, make no use of the Bible, sanction no word of prayer, and afford no place in its broad curriculum for even the simplest kind of moral instruction.

Godless France, as it is sometimes called, turbulent Italy, and even the free-thinking cantons of Switzerland, do not consider it safe, and much less, wise, to get along without the direct and positive teaching of morality and the rights and duties of citizenship. Nowhere did I find existing any fear lest to teach a boy how to do right would act as an incentive for him to do wrong. There seemed to be an impression that, while the moral act was the great thing desired, a fair understanding of the reason for such an act was of positive value, and made it more simple for the pupil to properly adjust his future conduct to other conditions of life.

In the twenty-five years of ethical instruction which France has required in her schools, there has been much that was dogmatic, philosophical, and beyond the understanding of ordinary children. But since 1900 a marked change for the better has occurred; the teachers have turned to this work with the zeal of religious enthusiasts, and by means of legends, biography, patriotic history, and the like, they are beginning to so vitalize the subject of morals that it not only instructs but inspires. From the primary grade to the Lycée I saw this subject taught, and no one could ask for keener interest than most of the classes displayed. In explanation of this new spirit, a principal of one of the Paris schools said to me: "The church is lost to the nation. In the schools and their influence for moral training lie our only salvation." France urges her teachers to make use also of the indirect method of moral instruction, and to press into service for this purpose every incident and every lesson as occasion permits. But she goes further than this, and very wisely gives such training in the normal schools as to make it more possible for the ordinary

teacher to perform this difficult task. In the use, too, of student organizations and graduate associations for promoting good fellowship and mutual assistance, our sister republic has much which deserves favorable consideration.

In this very hasty sketch I have tried to remind you of the growing emphasis placed upon moral training and of the most distinctive methods employed by the public school for its development. You will have noticed that the record is one showing immense diversity, with haphazard attempts along different lines, and with a complete absence of harmony or directness of aim. There is much to commend, but not a little to condemn, in the various experiments which are being tried in this and other nations, and the situation, as a whole, has been well described by our honored Commissioner of Education, as "beyond question unsatisfactory." In the same address, however, from which these words are quoted, he has said in a more hopeful vein, "We know that in this very field we must do a work and reach results which to the present day would appear almost impossible."

It was exactly this feeling of mingled hope and dissatisfaction which led a number of educators and public spirited citizens, representing different nations, to meet in London last September for the consideration of the moral training problem, and eventually to organize what is known as the International Committee on Moral Training. With the aid of strong advisory councils and the support of school authorities, it hopes to unite in closer fellowship the teachers of the leading nations; to advance the cause of education by a comparison of programs, methods, and established results; and especially to promote moral training as the supreme purpose of the public school. It plans to hold conferences of an international character, and to collect and publish exact information relative to the best methods employed to promote moral training and the development of good citizenship, thru the agency of the public school. With this knowledge as a basis, it will endeavor to formulate certain programs which seem especially adapted to the needs and character of different schools, and will then do what it can to recommend their adoption. The committee will endeavor to so influence school boards, city councils, legislative assemblies, and public opinion, as to obtain for the schools those enlarged grants and privileges which the changing social and economic conditions are beginning to demand. Mindful, too, that juvenile criminality increases in inverse ratio to school attendance, it will strive to make more general a longer school year and to have altered those defective laws which relate to truancy and compulsory attendance. And last, but not least, it will earnestly foster whatever brings to the teacher a better preparation, a fairer position, and a higher reward, for, after all has been said and done, the final solution of this subtle problem lies with the one who teaches.

DISCUSSION

James H. Baker, president, University of Colorado, Boulder, Colo.—I will refer to a few ways of aiding the moral instruction of youth: First, let us help in every possible way to create a strong public opinion and endeavor to purify the political and commercial

atmosphere. This is being done under the leadership of some of our great national officials, who have come to believe that public office is a public trust; let us help create a respect for law by suggesting the increased enforcement of law in this country. Second, religious teachers, ministers and laymen, and teachers in the public schools should study more carefully and completely the pedagogy and psychology of their subjects, in order that they may approach the human soul in a less bungling manner. And I would also suggest that we give a free, (i.e., absolutely free from church or state control) use of the Bible in the public schools of this country, as a basis of ethical and literary instruction. Reference has been made to what is done in other countries. Germany is doing much, but the tremendously formal religious instruction is not altogether satisfactory there. The very formal moral instruction in the French schools today is not altogether satisfactory. The freedom in England in the public schools and the private schools—I am using those terms as we use them in this country—is valuable, and much excellent moral instruction is being given, but it is often too formal to be everywhere most efficient. Now, in the American school, we have much freedom, and we must give more attention to the subject, formalize it more, and understand better the scope and methods of moral instruction. We have now a happy-go-lucky method; you may have something or nothing—something good or something bad. I believe we should formalize moral instruction more in this country, without losing the vital method that alone can give results. Absolutely indispensable in our schools is a reverential attitude in religion, an atmosphere of ideals. Next, I would say that the personality of the teacher must be powerful enough to make beautiful and striking pictures of the dignity of human life, of the excellence of good character, and of the beauty and dignity of truth and justice and honesty; such pictures as will make pupils see and feel that they must have "an enormous longing for the highest and best in all things." Formal instruction in ethics, unless it is vitalized, is not worth anything. Next we should give a sense of law. Into character-making, law as well as love must always enter, else you are casting your pearls before people who are unappreciative. Besides, education must make people efficient. Now, some people go through our grades and our high schools and colleges and come out without a strong sense of duty, a certain percentage of them without any power to accomplish anything definite, without any conception of purpose in life, without power to take up a piece of work and carry it to a finish and clean up the job. Now one of the greatest moralizing influences in the world is the power to be efficient, to do something, and I believe the highest use today of the manual training schools is not commercial or practical, but the fact that it calls forth a fellow's ingenuity, interests him in something, teaches him to show his power, to carry a job to a finish. I am going to recommend a reference book, and then close. I have the same view, probably, of this author that you have, and I don't believe in his religious and philosophical attitude, but you read Zola's last work, namely, *Truth*, and get a picture of the awful condition in France which finally led to the overthrow of the teaching congregations in that country, and finally the overthrow of the church as a state church, and see the ideal picture painted, the consciousness and perception of the beauty and dignity of truth and justice, and the success of the effort in some of the public schools through the freedom and power of the teacher, and the final result upon the community, and you will have a fine ideal of the possibility of the teacher in vitalizing moral instruction in our public schools, in giving the kind of instruction that Frenchmen today claim will save the Republic of France, and the kind that may purify and save our own republic.

W. H. Bartholomew, Louisville, Ky.—In moral training, the recognition of authority lies at the foundation, authority which is invariable and always right. Not only the recognition of said authority but the prompt performance of any requirement which may be embodied in its commands. Excellence in moral character is made possible when conformity with this principle is conscientiously observed.

There is a growing disposition among the youth of our country to disregard authority, and this charge may too often be lodged against the teaching force. It is the duty of the

instructor to the youth of the nation to enforce, by precept and example, this indispensable condition of moral excellence. I wish to say now and here that the man or woman in the teaching profession who does not recognize and practice this principle is a blind leader of the blind and that eventually both will fall into the ditch of ruin. Success in any calling depends upon the conscientious fidelity with which one performs the responsibilities which may be imposed upon him in that calling. If persistent disobedience is practiced it results in anarchy and as such it stands in the way of progressive moral excellence. The disobedient person not only becomes a heavy weight to the success of the cause in which he should be a trusted agent, but he eventually destroys the confidence placed in him by those with whom and for whom be labors. We cannot change natural laws. The benefits of moral law are made possible only by prompt and cheerful obedience. We receive the benefit of light by obeying the law of light; of color by obeying the law of color. Nature closes her doors against the disobedient, but she opens them wide to those who regard her requirements. It is also to the obedient that she confides her secrets and upon whom she lavishly bestows her benedictions.

The teacher should embody this principle in his daily life and when this essential agent enforces it by consistent practice, the conditions of a pure moral atmosphere are present as well as the recognition of obligation to conform the daily life thereto.

If this tendency to disregard authority is not checked this country will be called upon in the near future to bare its arm of power to enforce obedience to its constitutional demands.

The schoolroom apparatus, and even the teacher, are only means to an end and that end, which was emphasized in the paper of the morning, is character. Character is power. Mental character is mental power, and moral character is moral power. The strength of moral character is determined by the degree of resistance one has in the midst of temptation. The teacher should make use of every circumstance in school life to strengthen the moral character of the child.

Boys and girls should be led to realize that they are members of a community. Therefore selfishness should be reduced to the minimum. Power, knowledge, and skill should be acquired that one may be the better prepared to be helpful when an occasion arrives which may demand it.

Our schools should produce men and women who have faith in the right, love for the beautiful, and an obedient spirit of loyalty to constituted authority, and these to be exhibited in every walk of life.

The school is a miniature world, members of which are swayed by the passions and emotions which generally influence mankind; therefore the instructor will find numbers of instances when lasting moral impressions may be made. If thoughtful training is exercised at opportune times the student will be put into the way of happiness and contentment.

J. W. Carr, superintendent of schools, Dayton, Ohio.—In the three minutes allotted me I can emphasize but two points in this discussion on the subject of moral education. The first of these points is this: In my opinion, the most important thing to foster and encourage in the public schools of our nation is the moral development of the children in those schools.

If you will study the signs of the times, you will find that our society is failing, not on account of intelligence, not on account of scholarship, no, if failure there be, it is because of the lack of moral fiber on the part of the people. It is more important that our pupils be taught truth and honesty and justice and obedience, than that they should be taught the principles of arithmetic and grammar, though these things are important.

It is worth while, Mr. President, to teach our children to speak and write the English language correctly, but it is more important to teach them self-control and righteousness and to deal honestly and justly with their fellowmen!

I believe in culture studies. I believe that we should teach children art and music and introduce them to the great literary productions of the world, but these things should only be made a means of developing the moral fiber of our people. All these things should

be subservient to the highest aim—and that highest aim is the development of right character.

The second point I wish to make is this that we should train the pupils in our public schools in right habits of living and morality. Precept is not enough. The teachers in the public schools will have to solve the problem of how this is to be done. We must train the pupils, train them to speak the truth; train them to act justly; train them to obedience; train them to respect the law; train them in the simple elementary virtues that are the very foundation of society.

Now, how is that to be done? Members of the Council, I believe that the working out of a workable scheme of teaching the principles of morality, of laying the foundation for morality in the lives of the children in our public schools, would be the highest work that this Council could undertake!

I believe that the course of study should contribute its part to this end. I believe that the course in reading should contribute a part; I believe that the playground has a place in the work; I believe that the association of the children should have a part; I believe that the public has a part; I believe that the American home has a part. And, while I plead for the public school, I want the public school to do its full share, and at the same time we should never forget that the home must do its share, and the pulpit its share, and society its share. We must have less dogmatic, and more practical teaching. We must have fewer billboards in our cities that contaminate and inflame the minds of youths. We must do away with gambling dens in the rear of cigar stores. There must not be so many kindergartens of vice in this country, and there must be more agencies for the upbuilding of righteousness. And I believe, Mr. Chairman, that the public school teachers of our country should band together and work out this problem, as we would work not a course in literature or in nature-study, or in any other subject, and see if we cannot evolve a workable plan for the moral upbuilding of the children in our schools.

And I believe with the gentleman who has previously spoken, that after all has been said and done, that the personality of the teacher is the most important thing to be considered; that all the other things that I have mentioned are not to be compared with the influence of the teacher whose heart is in her work, and who sees in her child the image of God.

With that kind of teachers in the schoolrooms, the age of miracles is not yet past. She speaks to dumb lips and they break forth in song; she speaks to deaf ears, and they hear wonderful harmonies; she unfetters shackled hands and they perform deeds of mercy and kindness.

She, by her magnetic power, can even exorcise evil spirits, she can command the demon of stubbornness to come out, and it comes forth; she can rebuke the devil of lying, and it is gone. With such teachers in the schoolroom, the good in every child will blossom and bear fruit. She will be the idol and inspiration of the children. She will lure them to brighter worlds and point the way.

I wish to say, that while some of the children may not have the advantage of moral and cultured homes, while some of them do not have the Christianizing influence and uplift of the church, yet it should be the privilege of every American child to be taught by a noble Christian teacher.

J. L. McBrien, state superintendent of public instruction, Lincoln, Neb.—Instruction in moral education must take into consideration that knowledge does not comprise all that is contained in the broad term Education. The feelings are to be disciplined, the passions restrained, true and worthy motives inspired; a profound religious sentiment must be instilled and pure morality inculcated under all circumstances. Let us, therefore, teach our pupils that integrity and industry are the best possessions that can ever come to young men and young women in this life. Teach them that obedience to established law is a typical American virtue, and that every true American will always lend a hand to the proper enforcement of the laws of the school-district, the city, the county, the state,

and the nation. Teach them the difference between the consent of the governed and the dissent of the ungovernable. Teach them that liberty is not license, and that a republic is not anarchy. Teach our boys that

every man who falls below his highest harms not only himself, but lowers the standard of his country; that every man who values wealth more than honesty, rank more than character, amusement more than improvement, ease more than reform, to that extent falls short of the perfect citizen.

Teach them that manhood means more than gold, and that the man who sells his vote and the man who buys the vote are equally undesirable citizens. Yes, teach them that such men are scoundrels, that they should be prosecuted as scoundrels and punished as scoundrels. Teach our girls that

every woman who abuses the freedom of American womanhood by unfaithfulness lends the powerful incitement of her personality to the slavery of the past and to the failure of the republic; that every woman who leaves the duty and decorum of her native land and prostitutes her American home to the scandals, the vices, the social immoralities and moral impurities of foreign cities, not only compasses her own shame, but mars the fair fame and name of all Columbia's daughters.

Teach our boys and girls that it will sometimes be hard to know what is best to do, and that the best thing to do will oftentimes be the hardest. Teach them that a life of ease means nothing done; that no labor, no sacrifice, no anxiety, means no burdens raised or carried. Teach them that those who do things must always meet responsibilities that never come to those who fail to see their obligations as doers. Teach them that grave problems come in the life of every individual as well as in the life of every nation; that they come without being sought, and cannot be avoided; that the person, the generation, the nation on whom these problems are forced must strive honestly and earnestly for their right solution. We must teach our boys and girls that

it is only by surpassing the world in all chivalry and dignity, in all modesty and purity, in the integrity of our business, in the virtue of our homes, in the rectitude of our intelligence, in the aspiration of our intellectual life under the absolute control of moral righteousness, that we can meet the responsibilities of American citizenship.

I. C. McNeill, superintendent of city schools, Memphis, Tenn.—It seems this morning as tho there is much for us to hope for in the moral education of the boys and girls of this great country of ours. I see, in the international movement that has recently been inaugurated, an opportunity for men and women to formulate some simple things that may be brought down to the boys and girls to cause them to follow moral ideals so that they may grow to be like them. The organization headed by our distinguished friend who read the paper a few moments ago has for one of its principal objects the assembling of certain simple, fundamental, ethical truths, that may be brought within the comprehension of boys and girls, so that they may realize them and, therefore, habitually act upon them.

Now, I have in mind, suggested by the presence of one man in this room, the teaching of ethics in a practical way in the Normal University of Illinois. The principal ethical teaching that has been handed down in that school from year to year is the multiplication rule, Kant's multiplication rule—"Make each act worthy to be a universal act." Professor Wilkinson, who sits here, could tell you that this is tested by the number of acts possible in the school. I hold in mind now the picture of the president of that school coming before the students one day with a simple illustration. That illustration went home to the hearts of every person there. The moral idea that seemed to impress students most as being of the highest value was this one thing—put the test of the universal to the individual act.

The author of the paper just read suggested another thing that has come into the experience of many. We have heard of "group psychology;" we have heard of "mass psychology;" we have heard of "mob psychology." In some way we are now comprehending that there are masterful spirits whose wills dominate the group, and that

when we can put into the minds of the ones who are to lead the groups the right ideals, then the groups will become right also.

JOSEPH SWAIN, president of Swarthmore College, Pennsylvania.—I accept the doctrine of those who say that formal religion cannot be taught in our public schools, but I believe the things which are essential in religion should be taught at least by example by every true teacher everywhere. The finest fruit of religion is morality and high character. What the world needs now and ever will need is more men and women of high character. The question is how to secure them.

One way to secure them is thru the cultivation of the scientific spirit. This spirit assumes that there is such a thing as truth; that it is the duty of every human being to search out the truth; that he approach every problem with an open mind; that he be not satisfied short of the whole truth and nothing but the truth, and, knowing the truth, he adjusts his life to it. A greater gain to the world perhaps than all the gain of scientific knowledge is the growth of the scientific spirit, with its courage and serenity, its discipline of conscience, its intellectual morality and its habitual response to any disclosure of the truth. This spirit can be acquired in the study of any subject taught in the schools or in any of the relations of the life of the pupil, whether it be in the classroom or on the playground or elsewhere. I am confident that the process by which we ascertain the truth in science is the same by which we ascertain the truth in morals. Science says to those who love her: "Know the truth and follow it." What can morals say more?

Moral truth is only one phase of truth. If our teaching is such that we inspire a love of truth and hatred of error, character will be cultivated, which is the goal to be reached.

OLIVER S. WESTCOTT, principal of Robert A. Waller High School, Chicago, Ill.—The statement that example is vastly more powerful than precept will never lose its truth by persistent repetition. You lady teachers will have far less trouble in convincing the boys in your charge of the harmful effects of tobacco upon the human system when the principal will practice more self-denial and forsake the error of his ways. The boys know full well that even though the law says smoking on the school premises is strictly forbidden, the principal instead of lunch takes his quiet smoke in the schoolhouse basement. The same difficulty exists in inculcating the truth with regard to the use of alcoholic beverages. If the boys see a principal or male teacher stop at his favorite saloon daily on his way to school the precepts of all the lady teachers in the faculty will be unavailing.

The application of the Golden Rule, not a mere rehearsing of its form, the words and phrases of which are already familiar, will go far toward influencing youth in the direction of morality and uprightness.

The doctrine of *meum* and *tuum*, so well illustrated and elaborated by Dr. Harris in his description of the growth of the community, is also a fundamental element in moral education. The individual must be made to realize that he is but a unit of a whole and that he must be on his guard lest even inadvertently he may be trespassing upon the rights of his fellow-units. This doctrine, the Golden Rule, and a wider self-denial constitute a foundation of moral instruction on which a superstructure can more philosophically and successfully be raised than upon any compilation of moral precepts that ever has been or ever will be devised.

THE EDUCATIONAL PROGRESS OF TWO YEARS, 1905–1907

ELLA FLAGG YOUNG, PRINCIPAL, CHICAGO NORMAL SCHOOL

The two years just ended present much that is suggestive of the present trend in education. To report all the material aright is in the nature of things impossible; for to report accurately is to interpret, to judge the intent, and to predict the outcome of events. Each one who stands before you, as the

years go by, with the report of educational progress makes some misinterpretations. Doubtless I shall pass judgments in which you will not concur, but

> I must give judgment on my own behoof.
> So worked the predecessor! now, my turn.

The data for this report, collected from many sources, separate into two groups: one pertaining to people, the other to movements in social institutions.

Altho when an individual plays a great part in the drama of life, it is a principle that is the mainspring of his activity, yet our interest centers about his personality. We ask, what was he or she as a man or woman among men and women while doing the great things? It is because of the personality of William Torrey Harris, but recently the commissioner of education, that we speak of him as "our Doctor Harris." Nevertheless, in reviewing the conditions under which he withdrew from active participation in the conduct of a public office, we can have no feeling of regret. Dr. Harris had spent a half-century in education, filling successively the positions of teacher, principal, assistant superintendent, superintendent, lecturer in philosophy, commissioner of education. In all of these positions he was distinguished, for the reason that in addition to meeting the demands of an executive office, he never failed to follow his chosen vocation. He has always been, and will continue to be, a teacher. No other man has encouraged so many men and women to resume the student life and take up the study of psychology and philosophy while pursuing their daily round of duties. This remarkable influence upon the teaching body of this country has been due to several causes. In the fifties and sixties of the nineteenth century, the universities in this country were doing little suggestive, original thinking. They had no such brilliant independent thinkers as are some of the professors in psychology and philosophy in the American colleges and universities of today. The people's professor of philosophy, Emerson, with his transcendentalism, ennobled the thinking of those who were just beginning to ponder on the questions of life; but transcendentalism was not a definite philosophy. It did not meet the demands of mature minds ready for a discussion of the ultimate problems of nature and of life. William T. Harris, a superintendent of schools, entering in the early sixties a practically clear field, introduced that fraction of the reading public to the philosophy of Hegel and Kant. Neither the clear field nor the knowledge of German philosophy, however, would alone have sufficed to arouse the teaching body of this country to an interest in philosophy. Superintendent Harris had the qualifications necessary to make conditions effective: an abiding interest in the intellectual, social, and religious advancement of humanity; alertness in detecting indications that a mind is striving to reach higher and broader levels of thought. While attending closely to the duties of a public office, Dr. Harris has never been so much absorbed in them as to miss any opportunity to correspond or converse with anyone who directly or indirectly reveals an interest in the larger and deeper affairs of life. One's social station in life does not concern him. Mr. Brockmeyer was at the

forge in a blacksmith shop in St. Louis when the Harris-Brockmeyer friendship in philosophy began.

At about the date of the forming of this friendship, Dr. Harris began the publication of the *Journal of Speculative Philosophy*. From that time to the present day he has never ceased publishing in philosophy and education; and his many friends are now looking forward with eagerness to the use that he will make of the happy leisure brought by his retirement.

Yet it is not only as an author, a teacher, and an inspirer of men and women that Dr. Harris has been active in the educational world. Forty years ago, in the famous reports issued by him as superintendent of the public schools of St. Louis, objections were foreseen to the organization of elementary and high schools on the plan of annual graduations, and the method of semi-annual promotions was introduced into the St. Louis schools. It is a sad reflection on the slowness with which the mind pedagogic grasps social conditions that one finds today the majority of superintendents and principals still clinging to the annual plan of promotion. An organization of schools which this philosophic mind saw should be made seems to minds of less breadth a troublesome matter of detail, which, by rules and regulations, can be forced for a time into the background. The result has been, of course, that the lack of interest on the part of children who have been absent a month or two months, or who have not been quite equal to the demands of the year's work, becomes apparent thru the large number of withdrawals from the schools—withdrawals made because the obligation to repeat a year's work is felt to be a waste of a large part of the year. This is far from being the only question in the organization of the school system discussed in these reports before it had surged into the public consciousness. No others, however, can be considered, or even mentioned specifically here.

In the Bureau of Education, we find the colossal work of seventeen years permanently recorded in the annual reports that have been prepared under Dr. Harris' direction as commissioner. They consider the educational conditions thruout the world; they recognize every form of institution that contributes to the education of men. These reports have also presented from time to time groups of essays which made plain the fundamentals in the great educational movements that have today become assured accomplishments. No other man has had Dr. Harris' opportunity to make such continuous additions to the theory of education and to the practical situation in a great system of city schools and in the country at large; he made those opportunities.

The history of the severance of his connection with the Department of Education must be briefly told. In May, 1906, Dr. Harris received the following letter from the president of the Carnegie Foundation:

CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF EDUCATION, May 26, 1906.
William T. Harris, 1360 *Fairmont Street, Washington, D. C.:*

DEAR SIR: I am sending to your address a copy of the rules adopted by the trustees of the Carnegie Foundation for the granting of retiring allowances, together with a copy

of the act of the incorporation. The Executive Committee of the Foundation desires in its first step to show that such grants as it may make are in recognition of honorable service, and not acts of charity. It has seemed to them that they could best serve this purpose by tendering to a few men who have rendered a great service to education places at the head of what they wish to make a roll of honor. There is naturally no other name connected with American education which is so identified with its progress for the last thirty years as yours. We should like in the best way possible to show our appreciation for what you have done for education and philosophy.

If it is agreeable to you, therefore, we should be glad to confer on you as the first man to whom such recognition for meritorious service is given an annual income of $3,000, of which, under the rules, one-half would be paid to Mrs. Harris, should she survive you. I beg that you will inform me of your wishes in this matter. In communicating to you this wish of the executive committee I am commissioned to express at the same time their hope that you may accept this action as indicative of the highest appreciation and esteem which they can express.

I may add that this action is taken in virtue of the following rule, adopted by the trustees April 9, but not included in the published rules:

Meritorious service.—Retiring allowances may be conferred for meritorious services on teachers who have served not less than twenty years as professors, who have rendered unusual or extraordinary service to education, or who have in other posts served education in a conspicuous or unusual manner. Each case must be considered on its merits.

Very faithfully yours,

(Signed) HENRY S. PRITCHETT.

To this letter Dr. Harris replied, accepting the honor conferred upon him, and the following month he received a cordial letter from Hon. E. A. Hitchcock, secretary of the interior, expressing regret at his resignation and high appreciation of his services. The incident was closed by the following letter from the President:

THE WHITE HOUSE, WASHINGTON, June 19, 1906.

MY DEAR DR. HARRIS: In accepting your resignation as commissioner of education it is due to you to express not merely my regret at your feeling obliged to leave the service of the government, but my keen realization of the gain that has come to the United States from your presence in Washington and from your identification with the cause of education. I think it is a safe thing to say that all the people of our country who are most alive to the need of a real and thorough system of education have felt a peculiar pride and confidence in you.

With hearty good wishes,

Believe me, sincerely yours,

(Signed) THEODORE ROOSEVELT.

Dr. W. T. HARRIS, Commissioner of Education, Washington, D. C.

The present commissioner of education, Elmer Ellsworth Brown, needs no suspended judgment as to his fitness to command the situation. He is a graduate of the Illinois State Normal University, one of the leading normal schools in the Middle West and the oldest state normal school west of New York. This course he supplemented with study in one of the best of the state universities, the University of Michigan, and in German universities, receiving the degree of Doctor of Philosophy from Halle-Wittenberg. He has filled the chair of education, first in the University of Michigan, then in the University of California. The familiarity given by this experience with

the aims of both the normal school and the departments of education in the universities has produced in both quarters a sense of confidence in his judgments. The normal schools believe that in questions of difference in educational standards of normal school and university—affecting such matters as the preparation of new members and the offering of advancement to old members of the teaching corps—the quality of their work will not be undervalued. The university professors of education know that he is in full sympathy with their desire to introduce laboratory methods into their schools of education. Finally, in the schools of the country, whatever their kind, there is a universal sense of reliance upon his profound and abiding interest—to quote his own words—"in the development of a sound theory of education in connection with a sound theory of the modern state."

Turning now to educational conditions. Only a few years ago the thing that seemed to impress us most about our schools, colleges, and universities was their wonderful growth in size. The problem of the relation of the institution to the individual may not have been unrecognized, but there was little or no stress laid upon it. Today it is this to which everybody is keenly alive: the right of the individual to demand that the process of his education shall minister to his fullest development.

The lines along which this problem has been directly attacked by the colleges are, roughly speaking, two. In the reports issued since 1905 from the older colleges, the experiments center about the relation of student and faculty adviser; those from the coeducational institutions of the Mississippi Valley and the West add to this the development of the functions of men and women deans, it being a clearly-defined idea in this section that the deans shall hold a close personal relation to the student, altho the intellectual element is not necessarily included in that relation. The term and the office of student adviser have been in a certain sense long established in eastern colleges. At Harvard and elsewhere members of the faculty have been regularly appointed to exercise personal supervision and influence over the students in regard to their social and moral needs. The special interest attaching to the question at present is the shift in the view-point from which this relation is regarded. The change is best illustrated by the Princeton experiment, known there as the preceptorial system, in which emphasis is thrown upon the fact that while we send our young people to college that they may acquire a larger view of life, our more immediate intention is that they shall acquire scholarship which shall be an organic part of that life. In the words of President Wilson, the object is to get the college instruction into the lives of the undergraduates. In each department of study each undergraduate who chooses the department is assigned to a preceptor, to whom he reports and with whom he confers upon all of his readings in his courses. To inaugurate this system Princeton added over fifty to its instructional corps. The results of the first year's test have been summed up as follows: it has produced more and better work; it has systematized and vitalized study; it has begun to make reading men, and it

has brought teachers and pupils into intimate relations of mutual interest and confidence.

In the autumn of 1905, the University of Chicago inaugurated a plan which, devised early, had been held in abeyance since the founding of the new university. Princeton's plan involves a program which is fundamentally educational; Chicago attempted a larger reach, which should include the student's social life as well. The educational element of such a system is, however, expensive, and Chicago, thru lack of the necessary funds, "broke down"—in the words of one of the faculty—in putting into effect this side of the experiment. The fact invites the remark that the lack of appreciation in America of the need of a greater outlay of money in advancing the intellectual and spiritual side of education is the cause of the uneasiness extending over the country concerning the results of our educational system. In connection with normal colleges, high schools, and elementary schools, both the town and the neighborhood can see much more readily the necessity for a fine school building than for a fine school. The school building should be planned along artistic and sanitary lines, but the ornate should have no place in it; the school should be planned along lines that will deepen and enrich the powers of the children and students, but crowded classes and overworked teachers should not be found in it. It is not alone in Princeton and the great universities that money must be expended freely in order that students shall receive that individual help and guidance which they need in pursuing their studies. Money is quite as essential in the lower schools, in which, by a strange twist in the conception of educational life, the ideal seems to be the evolution of means by which the young can be trained in the largest possible masses. Popular education, like university education, is expensive. If we are to have either or both, let us insist upon an education that educates.

In connection with the problem of expense, the attention is perforce directed to the subject of the recent enormous gifts of money to the cause of education. Though probably not so intended, these gifts are performing the part of a mental ferment, out of which one truth, at least, emerges, namely, that these gifts, particularly with such conditions as that leaving the direction of the expenditure almost wholly to the giver, are a menace, because the giving seems much like a controlling of public opinion thru bribery of judgment and, ultimately, thru education.

That interest in England is concentrating on popular education and the practical means of obtaining it tho the expression of this interest takes form other than ours, is shown by a report on educational conditions in that country kindly furnished by the Bureau of Education and prepared by Anna Tolman Smith. The great event in education during the year 1906 was the introduction of the Birrell Bill in the House of Commons. Reduced to its briefest terms, this was a bill to establish popular control of schools supported by public funds, and it was carried in the final reading in the House of Commons by a majority of 192 in a total vote of 546. Notwithstanding this overwhelm-

ing expression of the will of the lower house, the bill was sacrificed in the House of Lords, but the wrecking amendments of the upper house were rejected *in toto* by the Commons when the bill was reported back for their action. The new year saw the enactment of only a single measure that had been embodied in the bill—a brief measure which came into operation on the twenty-first day of December, 1906. It gave to local education authorities, for the first time, legal power to supply or to assist in the supply of meals for children attending public elementary schools. One cannot be quite sure whether this measure was due to a full recognition of the principle of a sound mind in a sound body or to a determination to come to something upon which all could agree—the necessity of something to eat. Nevertheless, the bill, with other measures not acted upon, shows very plainly the drift of public sentiment with reference to the care and training of the rising generation.

The establishment at Harvard and Yale of the degree of Bachelor of Science on even terms with that of Bachelor of Arts illustrates both the difference in point of view that has obtained in the past between the East on the one hand, the Middle West and the West on the other, and the progress we are now making towards merging that difference in a single standpoint. For many years in the West the requirements of the Bachelor of Science and the Bachelor of Philosophy degrees have been on even terms with those of the Bachelor of Arts, the newer section naturally responding more readily to the demands of a practical situation. Experience has convinced the eastern colleges that there is a discipline to be obtained thru the union of scientific and cultural studies which is equal in value to that which is obtained thru the cultural studies only. On every hand we are reaping the fruits of the approach, from these two different points of view, to the requirements for the degree of Bachelor of Science.

In all its departments science is differentiating the pure and the applied into simply the general principle and the application of that principle. Biology, for instance, no sooner gets at the question of life than it develops along the lines of sanitary science and public health. Commercial geography is one of the subjects especially influenced by this new point of view, tho not in this country with such comprehensiveness as in Germany, where, as the report from the Bureau of Education prepared by Mr. Barrows shows, the German universities have been keeping practical ends before them more and more, and have even come to the aid of commerce by adding to the ancient regular courses leading to degrees, special courses in oriental and modern languages, history, and economics, with a view to preparing special students for commercial careers in South America, China, Japan, and elsewhere in the East. German science, too, is being invoked to help carry out Germany's commercial manœuvres, with the same patient, careful preparation of men trained for stepping into positions in distant lands with whose language, history, and commercial customs they have become familiar beforehand. This departure

in higher education, taken in conjunction with the establishment of technical universities and higher commercial training, is the most significant feature of German education in recent years. It shows that the ablest educational guides have taken part in the enormous commercial and industrial development of the nineteenth century.

The requirement of the colleges of a higher standard of preparation for scientific study is making for the same result—the interdependence of the scientific and the cultural subjects. In Yale, while the college degree is desired in preparation for the medical schools, it is not required; but emphasis is cast on proficiency in lines "suited to subsequent medical study." From a medical school in one of the largest universities comes the statement that the past year has been one of great significance and importance in medical education because of the decision of nearly fifty of the medical schools of the United States to advance their requirements for admission to include at least one year of college work, especially in physics, chemistry, and biology, in addition to the existing prerequisite, the completion of a four years' high-school course. Moreover, some of the medical examining boards, whose power in these matters is supreme, have announced their intention to refuse recognition to medical schools which do not exact this requirement. As to the methods of instruction in the medical schools, laboratory, practical, and clinical courses are more and more replacing the purely didactic methods formerly in vogue. This necessitates the subdivision of the classes into smaller and smaller groups, and finally, the fundamental branches have in all the better medical colleges been placed in the hands of instructors who devote their whole time and energy to instruction and research, each in his chosen line, and soon a considerable part of the teaching in the clinical branches must be placed on a similar footing. Much progress has been made in this direction in the last two years.

In some states, the relation between the state and the medical department of the state universities is close. In Colorado, a state hygienic laboratory has been recently established in the medical school of the university.

It is interesting to compare with these conditions those now existing in France. The deepest problems engaging the attention of French statesmen and educators at the present time relate to higher education. The extreme specialization that has characterized the universities and the higher schools of France has been fatal to the maintenance of that philosophic spirit which is essential to the best results of research and extended study in any direction. The same specialization has resulted also in separating certain branches of study from the professional training to which they are most intimately related. This is particularly noticeable with respect to the profession of medicine. An effort was made several years ago to increase the scientific training of students intending to pursue the study of medicine, by obliging them to spend a year, after receiving the bachelor's degree, in special work in physics, chemistry, and natural science; but this experiment has not proved adequate to the

demands of the time, and it is generally recognized that medical students in France have neither the attainments nor the equipment for study which will enable them to compete with their compeers in Germany. At this moment, it may be said that the chief problem in respect to higher education in France is that of the reorganization and strengthening of medical faculties, and this effort is related also to the more general effort for co-ordinating isolated institutions and diffusing thruout the domain of higher education the spirit of philosophic unity. It may be added that French educators appear to be more deeply impressed with the importance of studies that make for culture than is generally the case in our country.

The method of instruction in all departments of America is coming to be affected by the larger and clearer vision which science has developed. One of the most hopeful changes in method that is found anywhere is embodied in the report from the Massachusetts Institute of Technology, where the work in mathematics has been entirely remodeled. Instead of taking up algebra, analytic geometry, differential calculus, integral calculus, differential equations, in successive courses, they now give one continuous course in general mathematics, extending over a period of two years, the various topics above mentioned being introduced and developed at whatever points are most natural and whenever a particular principle is needed for further progress. In this way time is saved, repetition of ideas avoided, and the student acquires a useful command of mathematics as a tool at an earlier period in his course.

The principle involved in the case of mathematics is one applicable not to mathematics alone, but to all subjects. It is to be hoped that future reports will show in every department the working of the scientific spirit.

From different parts of the country, New York and Illinois, come reports of state action empowering the State Normal College of Albany and four of the state normal colleges in Illinois to confer degrees. This action will influence largely the preparation of teachers for secondary schools; and tho complications will necessarily arise between the state university and the state normal college, it indicates an advance in the estimation in which preparation in the normal college is held by the commissioner of New York and the state superintendent of Illinois. In some quarters the prophecy is made that the granting of degrees and the fitting of teachers for either secondary or elementary work will increase the percentage of men students in the normal colleges of the city and state. A larger way of looking at the matter would be that which sees a strong, better-equipped, and better-paid teaching body in the elementary and secondary schools. Very generally the courses in normal schools are taking on more and more the fundamental characteristics of good college courses, instead of continuing the cast-iron system which prepared all teachers on the same narrow basis. The normal school, state and city, now has required and elective courses. If the subjects of manual training, construction work, nature-study, and school gardening are ever organized so as to meet the requirements which we lay upon them in educational theory, this organizing

will be done by the normal school. The evolution of the method of the arts will come not only thru the intelligent effort of normal-school instructors, but also thru specialization by normal-school students in those subjects. Too great stress cannot be laid upon the life-giving influence of recognizing and developing the talents of the future teacher.

The practice work in the normal schools shows a tendency to take on a less evanescent character. Students are teaching the same children a longer time instead of teaching many groups of children for a short time each. Under this system they learn that it is not method alone that makes a teacher; they wrestle individually with the problem of "the child and the curriculum." In Illinois a remarkable decision, made in 1906 by one of the judges of the Supreme Court, has construed the elementary practice school as outside the limits of the law governing appropriations for elementary schools. The chief point on which the decision rests is to the effect that normal students are learning the science of pedagogy when they are teaching in the practice school, and, therefore, since pedagogy is not enumerated among the subjects to be taught in the elementary schools, the payment of critic teachers from the elementary-school fund is in violation of the state constitution. At first it seemed to the friends of the State Normal University, Normal, Illinois, that a death-blow had been given to the practice school. The University immediately took steps to make the practice school one of its departments, and invited the parents of the children in the public school of the town to send them to the practice school. It is to the credit of the practice school that the parents of two-thirds of the children in the town elected to send their children there.

Indiana has taken a step which Superintendent Cotton says is the greatest step forward ever made in the school affairs of that State, by passing a bill which invests the state board of education with power to make teaching in Indiana a profession. This act makes the board a state teachers' training board and authorizes it to arrange for a regular system of normal school instruction thruout the state. This it is to do by determining conditions under which certain schools in this state may be "accredited" in the system. It provides that the work done in these accredited schools shall be recognized by the state normal school; that these accredited schools may establish two-year courses open to high-school graduates, the completion of which will be accepted in lieu of the license and will entitle them to teach in the district schools and in the grammar schools in small towns for three years without examination. It is believed that the premium of teaching without license will appeal to many well-prepared young people who will be glad to teach in these schools while working their way thru the normal schools and colleges by attending the spring and summer terms. If so, this feature of the law will provide trained teachers for many of the district and small town schools, the schools that suffer most from lack of trained teachers. All the colleges and normal schools in the state, both state and private, may be authorized to maintain courses for the preparation of teachers.

The tendency towards consolidation of country schools has extended beyond its original limits. This consolidation not merely provides a better class of teachers but is resulting also in the erection of buildings with improved means of heating, and with better sanitary conditions than have been peculiar to the country schools. It is interesting to note the decision with which independent men have met the obstinacy of legislators in refusing to permit the transportation of children in these consolidated districts. Superintendent Blair of Illinois says that tho the legislature has repeatedly refused to enact a law legalizing the expenditure of money for the use of wagons for this purpose, his predecessor, Mr. Bayliss, gave a ruling that the law allowing boards of directors to spend money to cover any "necessary expenses" would cover this need. If the people of certain districts vote to consolidate their districts, and such consolidation places the school at such a point that certain children of the district cannot walk to school, then it becomes necessary for the directors of the consolidated district to furnish transportation for these pupils. The use of these wagons in the John Sweeney consolidated district, he adds, will probably be contested in the courts, but it is the beginning of a new era in the country school administration of Illinois. In order to assist in the more thoro supervision of the country schools the Department of Public Instruction has appointed an assistant who gives all his time to counseling the county superintendents, visiting country schools, and assisting in every way possible in their management.

That the modern rural school building contains a manual-training room is one more testimony to the barrenness of our ideals of manual training at the time of its introduction into high and elementary schools. One of the standard arguments then was that the city boy needs an outlet for his activities, which the city does not furnish. The opportunities of the country in comparison with those of the city boy were shown to be many. Almost every head of a normal school who has written about the progress of that school within the past two years has mentioned either manual training, or school gardening, or both, as subjects in whose instruction there has been a marked degree of progress. Here we find the argument based not upon the need of opportunity for manual activity, but upon the need for a development of appreciation of simplicity in design and harmony in color. The teacher of manual training longs to reach the home, or the farm, or the village far distant from the influence of art—an influence which extends over a small proportion only of the homes in the city. To refine the taste of the children thru their efforts to make that which is useful or to beautify the immediate vicinity of the home with flowers and shrubs, is one of the definite objects of manual training and school gardening in normal schools. Some think that the aesthetic element may relieve the crudity and monotony of the farm life which has had so depressing an effect on the farmer's wife, and that in this way the school will reduce the percentage of insanity but recently so alarming in the farming section of the country. Another object is to open the minds of the boys and girls to an

interest in the quality of foods and fibers which may become the productive crops of the farm. The normal school is doing pioneer work in preparing teachers who will carry to the rural schools knowledge and love of that which will give play in the children to emotional expression—the fundamental in appreciation of the beautiful.

In the *School Review* for April, 1906, there is an analysis of ten years' influence of the report of the Committee of Ten. It seems but yesterday that this report and that of the Committee of Fifteen were commanding the attention of all interested in education. And now the questions are raised: How fully has the report of the Committee of Ten been followed? Do we accept it sufficiently to warrant the expenditure of time and labor necessitated by the preparation of such a report? The replies run as follows: In regard to Latin, the recommendation of the Committee seems to have had weight; in regard to English, not; in regard to modern languages, the trend is in opposition to the recommendation; in regard to mathematics, it would seem as if the Committee's recommendation had carried weight, tho the great increase in solid geometry in the fourth year was not suggested in the report; in regard to physics and chemistry, it would seem as if the minority report of Professor Waggener was more nearly prophetic than was the general report; in regard to botany and zoölogy, there was slight compliance with the recommendations, and the course in physiology is contrary to the recommendations of the Committee; in regard to history, the schools are not yet ready for the intensive study urged by the Committee; in regard to geography, there is a material lessening in the number of schools offering any work whatsoever in the subjects covered by the recommendation of this sub-committee. Professor Dexter concludes his study by saying that the report seems not to have influenced directly to a marked degree the curriculum of the public high school; that more of the specific recommendations of the Committees have been actually violated by the trend of high-school organization, or have proved inert, than have been followed; that we teachers as a class are not apt at taking advice—even good advice.

There is an element in the high-school situation not mentioned by Professor Dexter which has tended, if not to sidetrack many recommendations of the Committee, at least to obscure them. I refer to vocational training, which, while not recognized in the curriculum of the old high school, has been more disturbing there than in the manual-training and commercial high schools. At about the time of the reports by the Committees of Ten and of Fifteen, the public mind had become clarified with regard to the necessity of preparation in the high schools for productive work that should enable the graduate to become immediately self supporting, or that should fit him for work of a high grade in technology or the arts. The academic idea was beginning to lose command of the whole situation in the high school. The manual training and technical courses for high school boys are generally given in schools set apart for public manual training, or in preparatory schools for institutes of tech-

nology. The ideal plan is exemplified in the construction and organization of the Yeatman High School in St. Louis. The cores about which the work in that school centers are manual training for the boys and various forms of the industrial arts for the girls. The cultural work is done under the same roof. That a woman, to be educated, must know something of the humanities is generally admitted; and so we find that any tendency to break away from this recognition of the needed influence of cultural subjects in a woman's intellectual development arouses protest, as in the case of the Girls' Technical High School in New York. In the last report of educational progress presented before this body, Mr. Howard J. Rogers called attention to the fact that this school had been established outside of the general educational trend, which is to make a common ground on which courses in practical and in cultural subjects shall rest. It is a matter of gratification to learn from Principal McAndrew of the Washington Irving High School in New York that since Mr. Rogers wrote that report the board of education has brought the school into line with this general principle. The Girls' Technical High School has been reorganized as the Washington Irving High School, with full college preparatory courses as well as all the technical courses; and the same tendency to combine has reached the technical schools on private foundations. The result has been that hundreds of girls in the academic department have taken up hand-work, hundreds in the technical department, the academic. The superintendent's last report disproved the argument that work of this kind can be better done if apart and specialized; it showed that a larger per cent. of the graduating class of this school passed the academic examination than in the two purely academic high schools for girls in Manhattan and the Bronx. Economy of funds, it is said, also results from combination. In short, from every standpoint there is confirmation of the opinion expressed by President Schurman of Cornell that the board acted wisely in keeping the academic and the technical courses in one institution.

New York City has seemed to grasp the problem of technical training for girls as well as that for boys. There are the two lines of work, technical and academic, in eleven high schools for girls in that city, while Chicago, the city next in size, has just begun to attempt a limited line of technical high-school work for them. If the next report of progress can show a broader grasp of this question in our large cities, it is probable that the city normal school will number in its clientele fewer whose gifts should turn them into other lines of service than that of teaching.

The same condition of unrest and experiment in secondary schools is to be noted in the reports of France and England. In England the development of secondary education is called the most important educational question of the present day, the pivot of the whole situation, since it affects the efficiency, intelligence, and well-being of the nation—yet its present condition is described as chaotic. This statement, made last December, remains true today; but it is equally true that great progress has been made, especially by local

authorities, in ascertaining the exact condition of secondary education in the areas under their control. The most important outcome of these efforts is a series of reports by Dr. Sadler, who has been engaged by the authorities of several cities and towns of England to investigate this subject and advise them as to the best means of meeting the urgent demands for adequate provision of secondary schools in their respective areas. The services of Dr. Sadler were first secured by the education committee of Sheffield, from which city he proceeded under a similar engagement to Liverpool. His reports of the conditions in these two cities were reviewed with copious extracts in the report of the commissioner of education for 1904, Volume I, pages 840–57. The same report contains a summary of a similar investigation made in London by Mr. Sydney Webb. These summaries set forth conditions which are common thruout England, as is indicated by later reports by Dr. Sadler. The efforts made by the local authorities to carry out the recommendations of Dr. Sadler are, in the opinion of the Bureau, the most hopeful signs of progress, in respect to public education, offered by England at the present time. They bear out the declaration of Rt. Hon. A. H. Acland, that "municipalities are the only powers competent to deal with this problem." What is wanted, he says, is municipal day schools in counties and towns everywhere within reach of the people. The movement for increasing the provision for secondary education is in fact a part of the general development of democratic ideas in England.

Should anyone ask where the unification of the schools of this country is effected, the Bureau of Education having no authority and membership in the National Educational Association being voluntary, the answer could be found in letters received from superintendents of city-school systems in widely separated sections in response to requests for data upon which to base this report. In these letters emphasis has been thrown on the same subjects, new departures have been made along the same lines. A review of the special subjects referred to important committees in years past and of statistics published in the annual report of the commissioner of education would show that this homogeneity of interests is developed largely thru the Bureau and the National Educational Association. Some of these lines of special interest, which, tho not opened up from the foundation, have been developed within the last two years, relate to the physical education of children; games and playgrounds; the management and instruction of the backward, the subnormal, and the vicious; the care of children in the tenement districts in large cities thru the organization of vacation schools; the salaries and qualifications of teachers.

In the high schools the question of athletics has been, and still is, one of the most serious questions with which the faculties have been called upon to cope. In the elementary schools, gymnasiums give a new aspect to the whole subject of physical education. The old calisthenics will some day be replaced by a method of physical education that educates the body. It looks as if

New York City, under the influence of Dr. Gulick, is going to handle the subject of athletic leagues in so educative a way that athletics will eventually be no more a source of difficulty than any other department of work in the schools. Superintendent Maxwell writes that these public-school athletic leagues under the lead of a director of physical training have done a great work in toning up the physical condition of boys and girls; and that the public contests of pupils of all grades in warm weather at the parks, and in the cold season at the armories, have brought new life to the young people. The normal schools, with their advanced systems of physical education, will probably influence the great mass of public schools more positively thru their required courses in gymnastics than will the schools of education in the universities, which often excuse their experienced teacher-students from participation in the work of the gymnasium.

What the outcome will be of the attempt to organize the play activities of children will appear in some future report of educational progress. That the work of the schools should be grounded in the activities of the children goes without saying, but that the school teacher shall organize and direct all the play activities of the children, making them subsidiary to the work of the school, is entirely a different question. It is the old pill of work with a chocolate coating.

Naturally the large cities are giving more attention to the supervision of the health of the children in the school than are the towns and rural districts. New York and Boston are in the lead in this matter. Boston has its appropriation for the maintenance of school nurses and a school commission authorized to take charge of the playgrounds the year round. New York is considering the question of supplying eye-glasses at public expense to all pupils with defective eyesight. Reference has been made to the fate of one education bill in England. Another was no more fortunate, tho two of its provisions "commanded a majority support even in the House of Lords." These two provisions were for the medical inspection of children in the public schools and for vacation classes and playgrounds.

The concentration of attention on the backward children shows an attitude toward the problem of individual instruction similar to that which has culminated in the preceptorial plan at Princeton. It quickens the heart-beat to find a great teaching body, extending from the kindergarten thru the college, opening eye and heart to a discovery of the conditions which hinder the child or the youth in his development and seeking the means by which these conditions can be improved. That education is admitting such variations of method—such variations in the selection of lines of subject-matter—is a significant fact—significant of nothing less than this: that we are reading into education on its practical side the idea of the development of the soul.

The vacation school is not a recent organization in the great cities, but, like all other movements that have in them a vital spark, its aim and value are taking on a different meaning from that attached to them in the early

days of the movement. Some of the bizarre elements that at first were prominent have been properly subordinated or have been dropped out of the program. In some cities, as in St. Louis, the whole expense of the vacation school is now borne by the public school fund.

The teaching in the evening schools, noticeably in Chicago, has advanced very positively in the past two years. It has become an established truth that good teaching will bring about the same results in an evening school as in a day school. Under a carefully organized system, the earnestness and grip of the classes are increasing steadily. A course of study in which the experience of teachers in the day and evening schools has been incorporated has also been a means of definite progress and effectiveness in the schools.

The work in the Indian schools is improving thru the emphasis thrown upon the importance of studying the characteristics and the environment of the race. In these schools, as in those for children of our own race, there is difficulty in finding teachers who work from the endowment and environment of the children instead of attempting to impose their own characteristics and their own narrow environment upon the children whom they teach. The superintendent calls attention to the fact that in many schools there is a failure to recognize the necessity of industrial training for the girls as well as the boys. Here again we find a striking similarity between conditions obtaining in Indian schools and in our own. In regard to language the same procedure is followed with the Indian children as with the children of foreign-speaking populations in large cities and various sections of the country. They are taught the English language, it being a generally accepted theory of education that a common language will unify different peoples more quickly than any other means that can be adopted for this purpose.

It seems appropriate in this connection to call attention to a method of correlation introduced at the Tuskegee Normal School; for altho in this case the introduction of the system referred to was made in a normal school, yet the system itself covers a condition in regard to which there are questions beginning at the time when children in the elementary schools write their first composition. Mr. Washington explains that at the opening of the present year a system was put into operation which has worked very successfully. By this system each student receives full credit in the academic department for all the work he does in English in the industrial department, just as if the work were done for a teacher of English in the academic department. For example, when a student in one of the shops is required to write a composition for his industrial instructor, this instructor examines the paper and marks it as to its correctness in subject-matter; the paper is sent to the English division of the academic department, where it is examined and marked for the form. The student, therefore, receives credit in the academic department for each composition written for an industrial instructor; whereas heretofore the ndustrial papers were marked by the industrial instructor primarily as to their correctness in subject-matter and the student received little or no credit

for the form. Now the student does his very best in English in writing industrial papers. The system is working admirably and correlates very effectively the academic and industrial departments so far as English is concerned. This system of special correlation has thus far been extended only to English in Tuskegee, but they are working upon the matter of applying it in mathematics at the opening of the next term in September. They hope to extend it until it covers, as far as possible, all the subjects taught in the academic department.

In regard to education in the Philippine Islands, the director says that the past year has undoubtedly been by far the most successful in the history of the Bureau in the accomplishment of substantial results. More pupils have been taught than ever before and the instruction has been much better. The regularity of attendance, especially as the higher grades are reached, argues well for the establishment of new habits and for the solidity of the instruction. The number of new schools opened is naturally not so great as in the two previous years, when the work of the Bureau was undergoing a rapid development, but the growth is evident, and these last schools have been established with particualr reference to permanency. Among the native teachers advance is noticeable. The system of classification introduced among them has been followed by a greater definiteness in their instruction. They continue to gain in reliability, strength of character, and moral purpose. The development of such a force, numbering as it now does over six thousand, including apprenticed teachers, still impresses one as the most striking result effected by the Bureau of Education. American teachers must necessarily come and go, but this force of Filipino teachers, continually gaining in learning, maturity, and character, understanding more and more clearly the character of their nation, and becoming continually more devoted to it, promises to be the best and most influential means for good in the life of the islands. The great mass of public school pupils are children of the poor or poorest classes. What will public instruction do for them? Will it make them independent producers, skilled workmen, intelligent citizens of their towns; will it free them from debt, raise their standard of life, and elevate their moral character? As to all this, the director admits that it is not yet possible for him to speak definitely. He is of the opinion that it has already been satisfactorily shown that the public schools in the Philippines can turn out competent teachers, clerks, and aspiring students, but that whether they can make the masses intelligent, industrious, economical, and upright is a question which will take some years of further progress to demonstrate, and that argument either for or against such hopes is at the present time practically futile.

It is not within the confines of the school only that steps have been taken to insure the progress of education along the line of increasing care for the individual. In June, 1905, a commission on industrial and technical education was appointed by Governor Douglas of Massachusetts in accordance with an act of the legislature of that state. In August, 1906, a second commission was appointed by Governor Gill. To analyze the reports of these commis-

sions before this council would be a work of supererogation. They show a great change in industrial conditions in the old Bay State as well as the need for readjustment of the theory of public education. It is to be hoped, however, that there will not eventuate a system of industrial education founded on the theory that the child of the working-man needs training in the industries only. The public schools of America must never forget in their theory and practice of education that every little one starting on his earthly career is mind-body.

Following the presentation of these two epoch-making reports was a meeting at Cooper's Union, New York City, to effect a permanent organization of a society for the promotion of industrial education. The names of the charter members of this society and the tenor of the addresses there made give promise of a broader and deeper view of industrial education than can be possible from amid the practical conditions of the schoolroom.

In December, 1906, there was held in Chicago a large conference on the question of truancy. Physicians, judges, teachers, and club women from different parts of the country took part in its discussions. Altho nothing definite was planned as a result of the addresses, yet the general contribution made by people representing different interests was valuable. Noteworthy is the statement from Superintendent Moore, of Los Angeles, that in the three special-day truant schools in operation thruout the year the attendance is higher than in the other schools of the city. This, he thinks, is due to the superior teachers in charge. Everywhere, in every branch of the service, comes testimony to the influence of excellent teachers. Why, then, do we still stand querying how to get along with poor ones?

In the latter part of June, 1907, the Playground Association of America carried out in Chicago the first program which combined the theoretical and practical interests to which it owes its existence. The theoretical phase was presented in a series of meetings in the city, at which there were many addresses. The practical side was illustrated in a play festival lasting thruout a day. In that festival there were exhibited in Ogden Park games, dancing, and every form of physical and athletic sports suitable for children and youth.

Another line in which social workers on the outside have accomplished for childhood what it would have been impossible for the teaching body to accomplish, is that of agitating for, and achieving the passage of laws controlling child labor. Not only have laws been placed upon the statute books of many of the states, but provision has been made for what are called scholarships, ranging from one to three dollars a week, which are paid to the parents, particularly widowed mothers, who need the earnings of the children. In no part of the country has the rousing to the problems of society been more marked than in the South. Following its awakening and advance along industrial lines has come an educational awakening; and here the schools find again the question of education becoming much more complex. Sometimes the committees organized to protect children who have been altogether

submerged in the industrial and commercial stream are disappointed to find that the school is not competent and ready to take these children at any point and advance their growth. While the public school is not for those children only whose opportunities for right living have been saved by legislation, yet it comes far short of its responsibility if it does not supplement the work done by those whose strenuous efforts have succeeded in securing the adoption of intelligent laws and their enforcement.

The governor of Illinois has been authorized by the state legislature to appoint a commission of leading educators to report upon educational conditions in this state. The appointment of commissions by the governors of different states is significant of the growth in the public mind of appreciation of the complexity as well as the importance of the question of the education of the young. Valuable as are the investigations and conclusions of men and women outside the school, yet it should remain a fundamental principle with us that the superintendent of any city or state system of schools must be an expert in education, and that, in co-operation with the teachers, he must be left free to command the situation from an educational standpoint.

In 1905 a large committee appointed by the National Educational Association reported on the question of salaries of teachers. Closely knit everywhere with this question is that of the promotion of teachers and other questions no less essential to their welfare. In Miss Smith's report for France the statement is found that the state has recently shown its interest in the welfare of teachers by a slight increase in their salaries and also by appropriations increasing the retiring fund and providing for more rapid promotions than heretofore. From several home cities there comes the report that salaries have been increased thruout the teaching body in those cities. In New York, in the recent battle of the women teachers for pecuniary recognition from the standpoint of service only and not that of service and sex, victory was turned into defeat by the veto of the governor, on the ground that the bill violated the principle of home rule for the city of New York. The results of the agitation are somewhat conflicting: a sharp line of cleavage between the board of education and the contesting teachers, and a division within the ranks of the teaching corps, accompanied by much antagonism and bitterness; but a renewal of discussion of the value of women's work, which some have supposed had closed with the nineteenth century. Under the new regulations of the schools of Boston, any teacher may, after seven years of service, be given a year's leave of absence on half pay for the purpose of study and travel. A teacher to whom this leave is granted files an agreement to serve the city three years on her return or to refund a proportional amount of the money which has been paid her during her absence. This leave may be repeated after seven years of service. Also, any teacher having completed twenty-one years of service in the public schools of Boston may be given leave of absence on half pay, for one year, without any obligation of either study or travel. Many leaves have already been granted on both of these provisions. The

subject of old-age pensions for teachers is attracting attention in many of the states. In New Jersey the pension law has been established by the legislature. Illinois has just passed a second bill better than its first, but still insufficient. Since the teaching body is composed, from highest to lowest, of salaried persons, the possibility of accumulating a capital, the income of which will afford an adequate support after the years for active labor have passed, is impossible. This makes the question of pensions for teachers one for the state, as in the case of other questions of civil service.

In some cities, notably Chicago, advancement in salary and evidence of the pursuit of study in classes in accredited schools have been linked together. The promotional examination plan in Chicago was in 1906, upon the recommendation of the superintendent of schools, so modified as to offer teachers a choice between examination and the presentation of a given number of credits obtained in normal extension, university, or college courses. This plan was overthrown at the close of the year 1906, and for it was substituted a requirement that each and every teacher in the elementary schools should give evidence of attendance, alternate years, upon a class organized for a meeting of an hour and a half once a week for ten weeks, either within or outside of school hours. If the teacher preferred to attend a class within school hours, the board undertook to arrange for the care of her pupils during the time of her attendance upon the class. At the last moment it was decided, on account of the lack of funds, that the principals of schools must themselves teach the children in the room left by the teacher, one teacher only being absent from a school at any one time. This decision raised a storm of opposition from the principals, more bitter, if possible, than that of the teachers who objected to forced attendance, under the former rule, on classes outside of their school hours. The question of advanced salary and evidence of growth in scholarship will be discussed at full length in the general meeting of the National Educational Association by Superintendent Cooley. It would not be mentioned here were it not that it is bound up closely with conditions that in the course of the coming years will profoundly affect the public school system of this country. These conditions date back to the early part of the last half of the century. Partly they originated in the narrow ideal of organization and systemization which at some time or other has dominated every school system. This ideal is mechanical rather than of that highly intellectual form which, sensitive to the need of change in any part of a system, is able immediately to adjust conditions and people to the change needed. Partly they proceed from the personnel of the teaching corps; the majority being inarticulate in the civic organization, has perforce been inarticulate in the organization of the school. It is highly probable that the agitation attending such difficulties has reached in Chicago an intensity greater than would be suffered elsewhere. In any event, we may remember that the symptoms of fever sometimes reveal the sources of a malady that would have escaped detection in a condition of dullness and lassitude.

If the public-school system is to meet the demands which twentieth-century civilization would lay upon it, the isolation of the great body of teachers from the administration of the school must be overcome. A partnership that permits a lot of sleeping partners, in regard either to their fitness or to their actual participation in the conduct of the business, is one in name only. In the universities and colleges there has been worked out an organization of students which acts in co-operation with the faculty. From Oberlin comes the statement that the general result in college legislation has been to increase the liberty of students, throwing upon them more responsibility and giving them more occasions for their own initiative. A student senate has been organized—a representative body, drawn from the men and women of the whole institution, who have no executive or judicial authority but with whom the appropriate officers of the faculty can consult freely and with whom they can discuss matters of interest to both students and faculty. Much is hoped from the promotion of a common understanding between these two bodies. Yale reports "the establishment of an alumni advisory council, to which alumni associations in all parts of the country should elect representatives and which shall give the university the benefit of organized discussion of its problems by those who see them from a different side from any which it is possible for the faculties fully to appreciate." Can it be possible that the teachers in the great public-school system have not that poise of mind and that interest in education which would make them valuable counselors? Or, on the other hand, can it be true that teachers are stronger in their work when they have no voice in the planning of the great issues committed to their hands? It is not a specious recognition, similar to that which student organizations receive in some colleges—a recognition that makes them the means by which the faculty secures what it desires, and places on them the onus of the measure—which the teachers want. It is in the nature of their chosen profession that teachers should be loyal to the principles of right and order. They should not be trained to answer to the crack of the party whip. The responsibilities they carry are fraught with too deep meaning to be so juggled with. It is a function recognized as organic in the public-school system which they should perform in the bodies known as school councils. That some have gone astray, following the vagaries of an independence that is simply isolation, is no objection to the councils; that some have failed to distinguish between socialism and educationalism and the social ideal in education is no objection to them. An hostility that is not founded upon a clear understanding of what is meant by school councils may for a time crush the councils in Chicago; but one is safe in predicting that when the effort to make the present issues personal shall have lost its vitality and the principles that are at stake in a great organization have been clearly defined, Superintendent Cooley will make the school councils an efficient aid to the public schools.

The output of educational literature during the past two years has been excellent. While there has been nothing strikingly original, there has been a

clarification of ideas and an effort to make certain that theory and practice may go hand in hand. There seems to be a tendency to go back over the field traversed during the latter part of the nineteenth century and restate conditions and conclusions so clearly as to guard against misreadings. This is especially noticeable in such books as Thorndike's latest, as O'Shea's *Dynamic Factors in Education*, and Horne's *Psychological Principles of Education*. The non-productiveness of the normal schools is noticeable, there being almost no contributions from them, with the exception of Kirkpatrick's *Fundamentals of Child Study*, and Mr. Bagley's books. This is due doubtless to the pervasive influence of the old idea that dominated the first normal schools in the country—the idea that a normal-college faculty should teach more hours in a day than the faculty of any other college finds it feasible to teach. It is not strange that the departments of education in universities can attract strong teachers from the normal school to the university work with its hours for study, research, and book-making. An octavo book made up of selected articles written by Mr. Dewey before 1905 has been compiled recently by Professor Findlay and published in England under the name of *The School and the Child*. The book is full of suggestive material. The subjects included range from the underlying basis of the kindergarten to the psychology of the elementary curriculum and, like all of Mr. Dewey's writings on education, are at once philosophical and thoroly practical. While it might seem inappropriate to speak here of the cost of a book, yet if the best method of teaching the theory and art of education is thru a varied bibliography instead of a textbook, instructors would be aided greatly if there were published more desirable books which, like this, would be within the reach of students with only modest means at command. In the field of social science, there is being published a class of books that teachers cannot safely neglect. Spargo's *Bitter Cry of the Children*, Jane Addams's *Newer Ideals of Peace*, Hall's *Immigration* are but a few books of the great library that has introduced us to social conditions but recently developed in this country.

In regard to the subjects in the course of study there has been a revision of the method of presentation. Diluted extracts of subject-matter are still in the field and are used by too many teachers. But the summer terms of normal school and university have contributed toward a general awakening of the teaching corps in the elementary schools to the delights of genuine scholarship. A letter recently received contains a glowing account of the wonderful interest and enthusiastic activity of the teachers in the monthly meeting for the schools of which the writer is the superintendent. This happy condition is attributed by the superintendent to the program provided, which, he says, always gives something new to the teachers, the only thing under the ban being "anything pedagogical." His analysis of the situation is good, as far as it goes. A full analysis would detect the evidence not only that teachers, like other men and women with trained minds, like mental food that nourishes; but also that they weary of trite commonplaces about teaching—pap that nauseates.

There is much crudeness and wasted effort in modern education, and yet one cannot fear for the future. An army of workers is in the field. That army is striving to give in the school those genuine experiences that make for the development of the possibilities of the child and the youth into the powers of the man or woman; that make for a strong and sympathetic character; that make for an understanding of the meaning of life.

IN MEMORIAM. WILLIAM HAROLD PAYNE

William Harold Payne, professor of the science and the art of teaching in the University of Michigan, a member of the National Council of Education during the years 1882 to 1891 and again during the years 1895 to 1897, died at Ann Arbor on the eighteenth day of June, 1907. The following memorial was presented to the senate of the University of Michigan by Professor Isaac N. Demmon and adopted by that body on the twenty-fifth of June:

For the second time during the academic year just closed death has invaded our ranks and carried off one of our number. Amid the festivities and felicitations of commencement week we were arrested by the sad intelligence that Professor Payne had answered the final summons that sooner or later must come to each one of us. In the early morning hours of Tuesday, the eighteenth instant, he slipped peacefully away, and at the solemn evening hour of Thursday, the twentieth, his mortal remains were laid to rest in Forest Hill. The man of quiet and unobtrusive mien whom to know was to love, the accomplished thinker, the profound scholar, the skilful administrator, the warm-hearted friend, after a half-century of distinguished service in educational work has closed his career and passed forever from mortal view. We who are left have come together, as our custom is, to do honor to his memory, to make some brief record of his virtues and his achievements, and to express our sense of personal loss.

William Harold Payne was born at Farmington, Ontario County, New York, May 12, 1836, son of Gideon Riley and Mary Brown (Smith) Payne. He was educated in the common schools and later in the Macedon Academy and in the New York Conference Seminary at Charlotteville. His career as a teacher was begun in the country schools, from which he passed to the headship of the public school at Victor, New York. In 1858, at the age of twenty-two, he came to Michigan to take the principalship of the Union School at Three Rivers, where he remained six years. For the next two years he was in charge of the schools at Niles, Michigan. In 1866 he was called to Ypsilanti to take the principalship of the Union Seminary, then the leading preparatory school of the state. Three years later he accepted the superintendency of schools at Adrian, Michigan, where during the next ten years he greatly extended his reputation as an administrator and educational writer. In 1879 he was appointed to the newly established chair of the science and the art of teaching at the University of Michigan. Eight years later, on the death of the chancellor of the University of Nashville (who was also head of the Peabody Normal College), the trustees of the Peabody Education Fund turned to Michigan for a successor; and Professor Payne was induced to leave a place to which he was deeply attached, for the more arduous task of carrying on the great

work begun by his predecessors at Nashville. This position he continued to fill with marked success for the next fourteen years, bringing the institution up to higher standards and extending its beneficent influence into every corner of the South. On the death of Professor Hinsdale, his distinguished successor at Ann Arbor, he was at once invited to return to his former chair. This, after some hesitation, he consented to do; and thus the heavy burdens of administration were again laid aside for the more congenial work of the classroom.

During his long career as a teacher and organizer, he found time to make valuable contributions to the literature of his subject. From 1866 to 1870 he was editor of *The Michigan Teacher*. In 1871 he published an address on "The Relation between the University and Our High Schools," which had its influence on the question of certification by diploma then under discussion. In 1875 appeared his "Chapters on School Supervision," and in the spring of 1879, "A Syllabus of a Course of Lectures on the Science and the Art of Teaching." His later works are: *Outlines of Educational Doctrine* (1882), *Contributions to the Science of Education* (1886), and *The Education of Teachers* (1901). Besides these he published translations of Compayré's *History of Pedagogy* (1886), *Lectures on Pedagogy* (1888), *Elements of Psychology* (1890), and *Psychology Applied to Teaching* (1893); also, of Rousseau's *Emile* (1892). In 1872 the regents of the University of Michigan conferred upon him the honorary degree of Master of Arts, and in 1888 the degree of Doctor of Laws. In 1897 the Western University of Pennsylvania conferred upon him the degree of Doctor of Letters.

His singularly sweet and quiet manners were no doubt due in some measure to his Quaker birth and upbringing. He was always and everywhere a gentle man. This need not imply that he lacked spirit or courage or force of character; for he had all these in abundance. He was a perfect disciplinarian. In the difficult field of school administration he was tried in a great variety of positions and he met every responsibility with full resources and with mastery. By a happy combination of gentleness, kindness, and firmness he had his own way without seeming to command it. Wholly without bigotry, he was a strict moralist both in theory and in practice. He was a man of strong religious faith, and clung eagerly to the good. He believed in the great disciplinary value of a rightly conducted school, and that the school had important functions besides the mere conveying of information. His modesty and self-poise coupled with clear thinking and deep feeling gave him remarkable power over the young who came under his instruction. No teacher was ever more genuinely loved and respected by his students. Not only from Michigan where the larger part of his life was spent, but likewise from the warm-hearted southern country, comes abundant testimony to this powerful uplifting personal influence for all that is lovely and true.

Soon after his return to the university in 1901 disease laid its heavy hand upon him and he gradually became incapacitated for work in the classroom. This grieved him greatly, but he did not lose his interest in the university nor

in the work of his special department. His mind was clear and his faith serene, and his face ever brightened with the old cheer in welcoming the visits of his friends. He wished to live, but he was not afraid to die.

While he was not the originator of the idea of making formal instruction in the science and the art of teaching a part of the university curriculum, he was quick to seize upon the suggestion when made and to urge its adoption. By good fortune he became the first occupant of the first chair of education established in America. The movement was everywhere heralded as a "new departure" and its success eagerly watched. By his tact, and intelligence, and strength of character, he won his way amid some open opposition and much silent distrust, to a complete victory; and when he was called South, he turned over a highly prosperous department to his successor. He lived to see his ideas embodied in the courses of study of nearly every higher institution of learning in this country.

The man is gone; but his work remains, his influence abides; and in taking leave of our theme we may recall the striking appositeness of the noble lines of Wordsworth with which he concluded the Duddon series:

> Still glides the stream and shall not cease to glide;
> The form remains, the function never dies;
> While we, the brave, the mighty, and the wise,
> We men, who in our morn of youth defied
> The elements, must vanish—be it so!
> Enough, if something from our hands have power
> To live, and act, and serve the future hour;
> And if, as toward the silent tomb we go,
> Through love, through hope, and faith's transcendent dower,
> We feel that we are greater than we know.

The only enduring monument to any man is the one the man builds himself, the impression he makes on the world. We may safely leave the fame of our departed friend to the thousands of hearts he has touched thruout his long and beneficent career.

REPORT OF THE COMMITTEE ON INDUSTRIAL EDUCATION IN SCHOOLS FOR RURAL COMMUNITIES

SUPPLEMENTARY TO REPORT SUBMITTED AT THE MEETING IN ASBURY PARK, JULY, 1905

SUBMITTED TO THE NATIONAL COUNCIL JULY 8, 1907

INTRODUCTION

L. D. HARVEY, CHAIRMAN, SUPERINTENDENT OF PUBLIC SCHOOLS AND OF THE STOUT TRAINING SCHOOLS, MENOMONIE, WIS.

Mr. Chairman and Members of Council:

I have brought here the material which your committee has organized. An explanation of the brief report to be submitted at this time is due to the members of the Council, and probably to the members of the committee. As you are aware, in 1905, this committee made a report on the subject of industrial education in schools for rural communities, in which it undertook to set forth the argument for that kind of work, the scope of the work, and a brief statement of what was being done in the different types of schools in which a beginning had been made in industrial education, and the necessity for a new type of secondary school distinctively industrial in character, and adapted to the needs of children in rural communities. These matters were discussed quite fully in that report.

The committee was continued, and asked to make a report in 1906. As a preliminary step to the actual work of investigation, the committee corresponded widely to determine the kind of information most desired by those who were directly interested in the phase of industrial education under consideration. This correspondence disclosed the fact that what was most wanted was a definite and authoritative statement of what was actually being done in different parts of the country in providing facilities for industrial education in rural communities.

A meeting of the committee was held and it was decided to undertake the work of gathering this information. A number of states were assigned to each member of the committee as his particular field for investigation. The general lines of inquiry pursued by each member of the committee were the same. The investigation was undertaken chiefly thru correspondence, tho supplemented by such direct personal knowledge as individual members of the committee might secure incidentally in their regular lines of work.

The committee was seriously hampered by the fact that but $300 was appropriated for its use in making the necessary investigations, which was practically exhausted in paying the expenses of two meetings of the committee. No money was available for securing personal investigations, where such investigations would have been profitable in enlarging or modifying the reports

obtained thru correspondence. From the large mass of correspondence, reports were received covering, more or less fully, the entire country. These reports showed a great awakening of interest in industrial education in rural communities, especially in the field of agriculture, and indicated that experiments of various kinds were being undertaken in many parts of the country, for the introduction of instruction in industrial subjects in the rural schools, and in schools organized with special reference to furnishing facilities for industrial education. In a number of states instruction in agriculture had been made compulsory in the country schools, by statute. In others, teachers were required to pass an examination in the elements of agriculture in order to obtain a certificate to teach. A considerable number of the state normal schools had begun to offer courses in elementary agriculture for their students, and in some states numbers of high schools were giving it a place in their courses of study.

Our investigations showed conclusively that much discussion of the subject was going on, that experiments were being tried, new schemes of work were being organized, but all in a tentative way. Of what was actually being accomplished in the way of results but little could be learned thru correspondence, and yet the committee decided to submit at the 1906 meeting such a report of the progress of the movement as could be prepared from the data obtained.

The report was well in hand when the announcement was made of the abandonment of the San Francisco meeting. Further work on the report was discontinued.

Much of the material gathered last year possessed but little value as the basis for a report to be made this year, as many of the experiments then reported as in progress had proved unsatisfactory and disappointing, while others had led to enlargement and modifications of plans of work.

The committee was without funds to prosecute its work further and what was done was by the personal efforts and at the personal expense of its individual members. We were unable to get what we felt the committee would like to stand by as an authoritative statement of what is actually being done. For that work—and it is an important work—it would require an appropriation that would enable the committee to put into the field, for a time, a competent person, to go where this work is being carried on in different states, and to investigate on the ground, definitely, the precise work that is being done, and from such investigation to state with some authority what is being done, and what results are being accomplished.

The committee, recognizing its inability to prepare such a report as, in its judgment, would most fully meet the demand for information, has, nevertheless, prepared a report covering certain phases of the subject assigned to it. The matter presented in the report has been prepared by Dr. L. H. Bailey, a member of the committee, and by the chairman of the committee, under the general direction and authority of the committee as a whole.

Dr. Bailey has summarized the purposes and values of industrial education for the children in rural communities, thru the work possible in the small rural

school, in the consolidated school, in the rural high school, and in the agricultural high school. He has also described three rural-school buildings planned and constructed with reference to providing facilities for industrial education. The school in each building is distinctively a rural school but is in a way connected with and under the control of a higher educational institution. One of these schools is connected with the agricultural department of Cornell University; one is connected with the State Normal School at Macomb, Illinois, and the other with the State Normal School at Kirksville, Missouri. Each presents a phase of organization different from the others, and shows the possibilities in the rural school under proper organization and with adequate support.

Dr. Bailey also discusses school gardening and manual training in the rural schools and presents a summary of the best obtainable information as to what is being attempted in the eastern, central, and southern states in the field under consideration.

That part of the report prepared by the chairman of the committee discusses the preparation of teachers for work in the field of industrial education. He considers the scope and character of preparation necessary for teachers of industrial subjects in the small rural school, in the consolidated school, in the rural high school, in the industrial high school, of which we have a number of types in this country, and in the agricultural college. The conditions under which this preparation can be secured at the present time and desirable modifications of these conditions are pointed out. This part of the report was elaborated somewhat, because of a suggestion made by the United States Commissioner of Education while its preparation was in progress, to the effect that at this time there is a wave of enthusiasm on this subject of industrial education sweeping over the country, creating a demand for teachers of industrial subjects which it is impossible to supply, and that unless the supply is rapidly increased, disastrous results will follow the inauguration of this phase of educational effort under poorly prepared teachers.

I should say in justice to individual members of the committee that since it was appointed, three of its members have been called to new lines of work; Mr. Hays, from the Minnesota Agricultural College, to the office of assistant secretary of agriculture, and Mr. Bayliss and Mr. Carrington, each from the state superintendency to the presidency of a state normal school. In each case, their new duties have made such demands upon them that they have found it impossible to give the amount of time to the work of the committee which they would have been glad to give and which the other members of the committee would have been glad to have them give.

I have no apologies to make for the failure to prepare such a report as we had hoped to prepare, but simply can say that we have done the best we could under the circumstances, and believe we have made some progress. We hope that the Council will deem it wise to appoint another committee who shall take up this matter, and carry it on, and shall have sufficient funds to do definite and valuable work, and shall present, from time to time, the results of their investigations to the Council for its consideration.

No funds were available for the publication of this report and it is submitted to the Council without being read, for such disposition as may be decided upon by the proper authority.

Respectfully submitted for the committee,
L. D. Harvey, *Chairman.*

I. DISCUSSION OF THE GENERAL PROBLEM

Education should articulate with the activities of life. This statement needs no explanation and no defense. The only question is one of the means to be employed to realize it.

The rural school does not articulate with the activities of life. It does not teach the essentials. Yet the rural school affords the only school-training that the great majority of the rural people ever receive. Probably less than five per cent. of the pupils in rural schools ever go beyond those schools. In most cases, the years of schooling are few even then. The compulsory education laws usually do not apply to pupils above fourteen years of age who have other employment. Moreover, the school period is often short, ranging from three months to nine; most farm boys of working age do not attend school in summer. It is evident, therefore, that the rural school is not meeting the needs of the people, altho the people themselves may not know it. City schools have changed radically within a generation. Rural schools are changed only in incidentals here and there; they are in a state of arrested development.

The rural school must continue to afford the training for the greater part of the rural population. It is neither possible to supplant it, nor desirable to try to do so. In some regions, present school districts may sometimes be consolidated to advantage, but they will still be rural schools; in other large regions, consolidation is not to be recommended. While the rural schools should articulate with the schools above them or beyond them, they should be complete in themselves as far as they go, and should exist for themselves. They should train for life as well as for high school or college. Of the pupils who enter the public schools in the United States (statistics of 1902) only 11 per cent. reach the high school and 2 per cent. or less go to college. How to revive and advance the rural school is now the greatest problem in educational policy.

Interest in the rural school is now active and widespread. The investigations of the committee show that every state and territory and every Canadian province is alive to the question. Not one of them, however, has worked out anything like a complete plan or system, let alone putting it in actual practice. The whole subject is in the experimental and formative stage. The greatest wisdom is required to direct this new interest.

The discussions of the problems of the rural school are not confined to the main agricultural regions nor are they most active there. They are equally keen and progressive in states that are dominated by other industrial interests. This indicates that the present interest is founded on real educational sentiment and needs, not merely on the demand of a particular occupation or profession.

So far as the official attitudes of states and state departments of education are concerned, the interest in the rural school problem expresses itself chiefly in six ways: (1) the adoption of syllabi in nature-study, agriculture, or domestic science—one or all; (2) the making of mandatory laws compelling the teaching of these subjects in the common schools; (3) the adopting of a textbook; (4) the holding of institutes or summer schools in which these subjects shall be taught to teachers; (5) plans for increasing the efficiency of supervision of rural schools; (6) general propaganda work by means of lectures, leaflets, and correspondence. In one or another of these ways practically every state in the Union has taken official action.

The existing institutions in which teachers may be trained for the industrial work in rural schools are chiefly seven: (1) the regular normal schools, which are more or less effective for this work in the Middle West; (2) county training-schools for teachers, of the type of those in Wisconsin; (3) normal departments in colleges of agriculture, of which one has been in operation in the College of Agriculture at Cornell University for two years, and another one of which is now provided for at the Massachusetts Agricultural College; (4) normal institutes; (5) summer schools; (6) training-classes in high schools; (7) correspondence courses. These institutions will supply the present demand; but it cannot be long before a more definite and concrete effort will be needed. Perhaps a new kind of normal institution will be forthcoming. It would seem, however, that strong normal departments in a few of our agricultural colleges would be able to set the problem before the people and to prepare the way for the organization of effective agencies to meet the necessities. In the meantime, normal institutes and correspondence work can be of great service. The former has been demonstrated in Minnesota and Wisconsin, and the latter at Cornell.

How far the regular education departments of colleges and universities can effectively aid in this work is very problematical. Their point of view is usually such that they cannot readily adapt themselves, and they are removed from land and are not possessed of the requisite technical knowledge. Teachers College in New York City is now making an arrangement with the College of Agriculture at Cornell University whereby the pedagogical and agricultural sides may be brought together. Most pedagogical departments are aware that they are under the necessity of dealing actively with industrial education in rural communities.

In the teaching of these industrial subjects to children, the work must begin with the concrete. It must be practical and have direct relation to the lives of the pupils and the affairs of the community. It is a common practice to approach the subject from the point of view of its evolution, and to follow its gradual development thru the centuries or else to build up a scheme of classified knowledge concerning it. This may interest the teacher, but it is not naturally interesting to the pupil, and it does not lead him to an understanding of himself or his environment, nor fit him for the insistent duties of life. If

an example is wanted, it may be taken from the common practice of teaching to children the idea of the evolution of dwellings, beginning with the structures erected by savages and coming down to present times, whereas the child ought first to be taught how to build a comfortable, sanitary, artistic, and durable residence; or, from the practice of teaching the plant environment by trying to give the pupil a complete and classified view of the vegetable kingdom; or from the old custom of beginning geography by an account of the universe or the solar system. The natural and useful method is to have the child begin with the real things of his life; if he continues in school long enough he may learn the classified science and the evolution of the subject. The primary object of school-teaching is to develop the child, not to develop the subject.

In a rural community, all the customary activities should find some expression in the school as a means of putting the pupil into touch and sympathy with his environment: (1) the natural objects in the region and the character of the country; (2) the means by which the people in the community live; (3) the household or domestic affairs; (4) the civic affairs, or the way in which the human activities are organized and governed. All this is nature-study in its best and broadest sense. These subjects may be taught in separate periods or classes; but the fundamental means is a complete re-direction of the school activities so that vital experimental work will be a very essential part of the school life. This re-directing of school-teaching, in both country and city, is taking place at the present time, altho silently and unobtrusively.

Even with the present funds and the present equipment, very much may be done to put the rural schools into touch with local life and problems. This can come about by establishing a new point of view, a new intention on the part of the teacher, a new philosophy and method of education. This, however, is not all that the rural schools need. They must have more money for teachers, equipment, and maintenance. In some cases, funds can be combined to advantage by consolidating two or more districts, but this is not a fundamental or universal method. In the great majority of cases, rural school districts are now large enough if local interest and sentiment are to be developed or maintained. Given better supervision, then the states can well afford to appropriate more money to these schools, always on the condition, however, that the communities respond and co-operate. It is more necessary for the commonwealth to maintain effective rural schools than to maintain canals and highways, or to engage in reformatory and eleemosynary enterprises for the benefit of those communities.

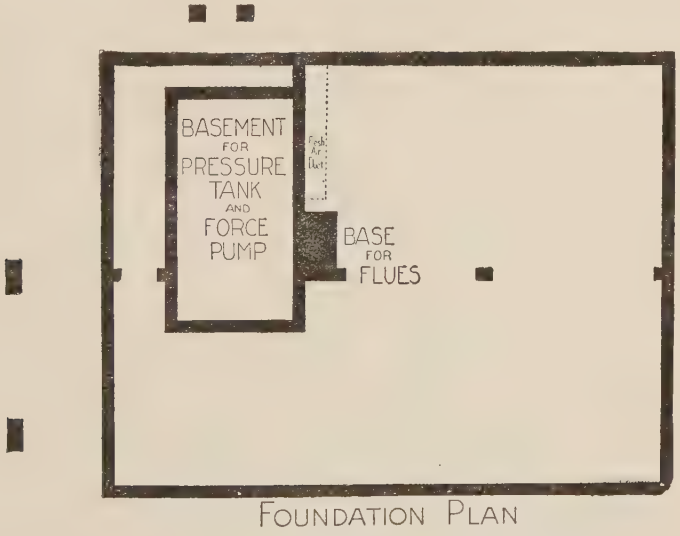
A NEW KIND OF SCHOOL BUILDING

Not only must the school programs be re-directed, but the facilities themselves must be reorganized and extended. Land should be as much a part of rural schools as the building is. This land should be used for outdoor laboratories in the form of school garden and demonstration grounds. The building itself should be reconstructed or added to, in order that at least one workroom may be added. One type of building exists in practically all the rural school

districts in the northern states, showing that new or local ideas have not yet worked themselves out into these schools. Moreover, these houses are of the same kind as those erected when public education first came into existence. As a suggestion of some of the new ideas in rural school buildings, the following account is submitted of a new structure on the grounds of the First District Normal School, Kirksville, Mo. (President John R. Kirk). The details given below (which are a part of a printed circular) do not show the attic or second story arrangement. The stairway leading up from the manual-training shop turns just over the front entrance and leads into the upper story. In this upper story is a good room, eleven feet square, well warmed and ventilated, the distance from the floor to ceiling being seven feet. To the north of it are two other rooms, each seven by twenty one feet. The square room has an abundance of light from the south, but two long, low windows are now being inserted a little below the middle of the roof on each side so as to give both forenoon and afternoon light. This room is easily heated. It will be furnished with well water from the pressure tank. It is proposed to call this "the agriculture room" and to encourage the establishment of a department of agriculture.

A MODEL RURAL SCHOOL ON THE NORMAL SCHOOL CAMPUS

This model rural schoolhouse has been designed and constructed to show that a rural school in any part of Missouri can, for the investment of about $350 in addition to the usual cost of a good building, have all the conveniences and comforts that can be secured in any city schoolhouse.



FOUNDATION PLAN

It is the intention to have in this schoolhouse, within the near future, a model rural school, the children to be transported in covered vehicles to and from the school. This is to be a model school, not a practice school. It is to exemplify the best things which a school board and a good teacher with good facilities can do in and for a rural school.

This building is the culmination of a long-cherished hope. The designer while state

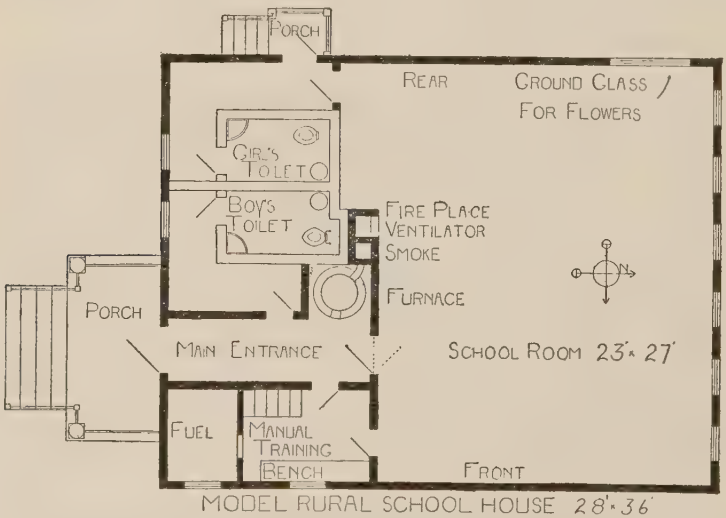
superintendent of schools in the '90's traveled widely thruout the North and East in search of the best models. The ideal and practical could not be found in one building. Hence a long series of experiments in working out this model.

FOUNDATION PLAN

1. The foundation is rectangular in form and 28×36 ft. outside measurement.
2. Outer foundation, of concrete, extends two feet below and two feet above surface of ground.
3. Inner 10-inch concrete wall encloses cellar, 6×14 ft.
4. Cellar can't freeze.
5. Cellar is ventilated into smoke flue.
6. Cellar has concrete floor, with drain into sewer.
7. Cellar is reached through trap door in boys' hallway.
8. Cellar contains pneumatic pressure tank 3×8 ft., working capacity 350 gallons.
9. Cellar contains forcepump connecting tank with well thru pipes below frost line.
10. Cellar contains soil pipes, water pipes, and drain pipes reaching to and from toilet-rooms above.
11. Cellar contains sewer connections. Sewer enters city system.
12. In a rural community sewer may enter cess pool, old or new, at rear or side of lot; or a tile may conduct sewage into neighboring slough or creek.

FLOOR PLANS

1. Floor plan, 28×36 ft., same as foundation plan.
2. School room, 27 ft. 2 in. by 21 ft. 6 in.—12 ft. from floor to ceiling.
3. Door at rear on right side leads to girls' toilet-room, porch, and playground.
4. Furnace in alcove at side of room distributes pure air and equalizes temperature.



MODEL RURAL SCHOOL HOUSE 28' × 36'

5. Pure air enters furnace thru asbestos-covered duct under floor.
6. Ventilating flue is 13×21 inches in the clear.
7. Opening into ventilating flue is made into a neat fireplace.
8. Smoke flue, 13×13 inches in the clear, helps heat ventilating flue.
9. Cupboard in wall at side of vent flue has a neat unfolding leaf for teacher to write on.
10. Manual-training shop is 6×8 ft. in the clear and has abundant light.

11. Fuel room, $4\frac{1}{2} \times 6$ ft. in south east corner, capacity six tons of coal.

12. Stairway to attic starts in corner of manual-training room, runs over fuel-room and entrance.

13. Schoolroom lighted thru six large windows on north side.

14. Children face the east. Light comes from their left.

15. Halls leading to toilet-rooms contain hooks for hats, clothing, etc.

16. Schoolroom receives direct sunlight on floor at southeast and southwest corners thru glass in doors.

17. Ground-glass window on west side near northwest corner, for window garden, prevents glaring light, admits chemical rays for flowers and for sanitation.

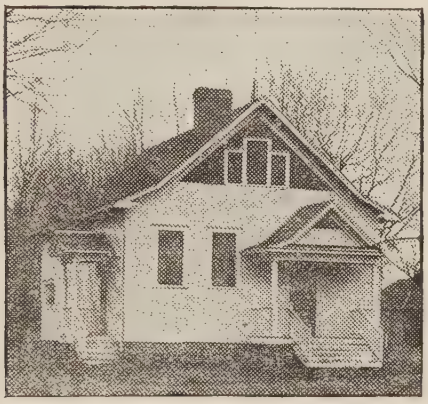
18. Toilet-rooms are ventilated into smoke flue. They have no bad odors.

19. Toilet-rooms have hot and cold water, wash bowls and toilet bowls.

20. Toilet-rooms have glazed cement wainscoting and cement floors.

21. Toilet-room floors are drained into cellar, thence into sewer.

22. Toilet-rooms inclosed and separated by double walls to deaden sound. Noise of toilet fixtures not heard in schoolroom.



MODEL RURAL SCHOOLHOUSE

23. Toilet-rooms can not freeze, except by gross negligence long continued.

24. Position and construction of walls, doors, and hallways give toilet-rooms an air of complete privacy.

25. Each toilet-room has direct sunlight at noon thru outer window and glass in door.

26. Small plate-glass in each toilet-room floor admits direct sunlight to basement.

27. Each room of this schoolhouse has direct sunlight, yet the children's eyes are protected. Children study by abundance of mild light from the north.

28. This schoolhouse is built upon the popular rectangular foundation.

29. Undue appearance of width is overcome by form of roof. Flue may seem a little low. It is yet to have a six-inch concrete top.

30. This schoolhouse is, in all respects, built out of the best available material and in the best possible way. It is therefore thought to be a model in every essential particular. It was not built by contract. The regents directed the president of the school to purchase material, employ laborers, and build. Cost can therefore be given in detail. With ordinary material and labor such a schoolhouse should be built in almost any rural district of Missouri for about $1,200. Full specifications will be furnished to Missouri school boards free of cost.

A rural schoolhouse of a very different type has recently been erected on the grounds of the New York State College of Agriculture at Cornell University It is a one-teacher building designed to serve as a suggestion in schoolhouse architecture and also to provide a real rural school as a part of the nature-study department of the college. The following statement (by Professor L. H. Bailey) of the purpose and construction of this little building was recently issued.

THE CORNELL RURAL SCHOOLHOUSE

EXTERIOR OF MODEL RURAL SCHOOLHOUSE ON CAMPUS OF CORNELL COLLEGE OF AGRICULTURE

The prevailing rural schoolhouse is a building in which pupils sit to study books. It ought to be a room in which pupils do personal work with both hands and mind. The essential feature of this new schoolhouse, therefore, is a workroom. This room occupies one-third of the floor space. Perhaps it would be better if it occupied two-thirds of the floor space. If the building is large enough, however, the two kinds of work could change places in this schoolhouse.

It has been the purpose to make the main part of the building about the size of the average rural schoolhouse, and then to add the workroom as a wing or projection. Such a room could be added to existing school buildings; or, in districts in which the building is now too large, one part of the room could be partitioned off as a workroom.

It is the purpose, also, to make this building artistic, attractive, and homelike to children, sanitary, comfortable, and durable. The cement-plaster exterior is handsomer and warmer than wood, and on expanded metal lath it is durable. The interior of this building is very attractive. School-gardens and playgrounds are being made at one side.

The cost has been as follows:

Contract price for buildings complete, including heater in cellar, blackboards, and two outhouses with metal drawers	$1,800.00
Tinting of walls	25.00
Curtains	16.56
Furniture and supplies	141.75
	$1,983.31

In rural districts, the construction might be completed at less cost. The average valuation of rural school buildings and sites in New York State in 1905 was $1,833.63.

The building is designed for twenty-five pupils in the main room. The folding-doors and windows in the partition enable one teacher to manage both rooms.

INTERIOR OF MODEL RURAL SCHOOLHOUSE ON CAMPUS OF CORNELL COLLEGE OF AGRICULTURE

CONSTRUCTION DETAILS

In working out the problem it has been the aim to accomplish a maximum of accommodation combined with an artistic appearance and a minimum of cost. The materials used are such as may be readily obtained and easily handled.

The building is placed on a concrete foundation composed of gravel or broken stone, cement, and sand in the proportion of one part cement, three parts sand, and five parts gravel.

The foundations under the schoolroom proper are carried down below frost only, while under the vestibule the walls are of sufficient depth to form a small cellar for the heating-apparatus.

The superstructure is of ordinary frame construction as follows:

Joists	2′×8′, 16 ft. on centers;
Studs for inside walls	2′×5′, 12 ft. on centers;
Studs for outside walls	2′×5′, 12 ft. on centers;
Rafters	2′×6′, 16 ft. on centers;
Hips and valleys	2′×8′.

The entire exterior walls are stuccoed with cement mortar, rough-cast on metal lath nailed directly on the studding, the stucco being returned in all openings, thus doing away with outside casings wherever possible. The roof is shingled over sheathing laid open in the usual way, and is designed (as shown in sketches) with low and broadly projecting eaves with the windows cutting up thru them.

The interior is plastered on plaster-board with patent plaster, two-coat work, trowelled smooth and decorated in simple gray-green for side walls and pale yellow for ceilings. The floors are of $\frac{7}{8}'$ matched pine, and the standing trim is yellow pine natural in finish. This trim has been used as sparingly as possible and is not molded. Wherever possible, door and window casings have been omitted, the plastering returning into jambs with all corners rounded.

All doors are stock pine. Inside doors $1\frac{3}{8}'$ thick. All sash is $1\frac{3}{8}'$ glazed with good quality double-thick glass.

The openings between schoolroom and workroom are fitted with glazed swing sash and folding-doors, so that the rooms may be used either singly or together, as desired.

The workroom has a bay window facing south and fitted with shelves for plants. Slate blackboards of standard school heights fill the spaces about the rooms between doors and windows. The building is heated by hot air; vent flues of adequate sizes are also provided so that the rooms are thoroly heated and ventilated.

On the front of the building and adding materially to its picturesque appearance, is a roomy veranda with simple square posts, from which entrance is made directly into the combined vestibule and coatroom and from this again by two doors into the schoolroom.

SCHOOL GARDENS

The school must have an active laboratory connected with it if it is to do the most effective work in subjects that relate to its environment. One of the best laboratories is the school garden. Such a garden is not designed for looks alone, nor merely for the teaching of gardening, but it should be a real laboratory or workroom in which children can handle plants and soils and tools, and come into contact with actual problems. The school garden must be distinguished from a mere ornamented schoolground. Every schoolground should be attractive with interesting and practical planting of trees, shrubs, and other plants; but aside from this, the school-garden laboratory is fundamentally important.

The two great difficulties in the maintaining of a school garden in rural communities are, (1) the lack of available land, (2) the fact that there is no one to care for the premises during the long summer vacation. Whenever it is impossible to organize a school garden on the school premises, it is not difficult to interest the children in making gardens of their own at home and to make reports on their work to the school. These gardens should not be too large, but should be definite and so planned as to work toward a fairly concrete set of problems. It is important to emphasize the fact that these gardens are not made for looks. Sometimes the poorest garden will teach the best lesson if only the laboratory spirit pervades it. It is a question whether it is not worth while to make spring gardens on the schoolgrounds even tho they must be neglected during the summer.

The school-gardening movement is now well established in many parts of North America. It provides an additional room, and the laboratory materials

are the soils and the plants, together with the birds, insects, weather, and whatever objects may be associated with it. The plants to be grown in the school garden are to be chosen with reference to soils and other local conditions. In many cases it is advisable to grow the common agricultural crops of the neighborhood, along with garden vegetables and flowers. The aim of the school garden is to put the child in touch with common realities, and by means of them to train the mind and the hands.

MANUAL TRAINING

In very many places the manual training can be provided for in the school garden itself. All the customary repairing and work about the buildings, as the painting, mending of locks, and the setting of glass should really be performed by the pupils of the school. It is always advisable, however, to have a special room set aside for the manual training. This will provide occupation in inclement weather and at seasons when the children cannot work in the school garden. A basement-room can often be utilized; or sometimes an attic or second story can be adapted to the purpose. In districts in which the school population has decreased there may be sufficient space on the main floor to allow a partition to be thrown across and a workroom provided. The best plan, however, is to accept the situation frankly and to provide a regular workroom as large as the ordinary recitation room.

Undoubtedly the early work in manual training should deal with some of the fundamental concepts of shape, proportion, and manual dexterity, but there is no reason why the practice-work should not soon extend to the making of simple apparatus and supplies for the school premises and also to the construction and repair of simple tools and utensils used in the home and on the farm. Many of the principles of physics can well be illustrated by means of agricultural implements and machines.

The school garden and the manual-training room should be complementary laboratories, one supplementing the other thruout the year. They should provide for a continuing, articulating series of activities on the part of all the pupils. These two sets of laboratories can provide training adapted to either boys or girls. In the case of girls the manual training can be given a distinct home-making phase, bringing into it many of the kinds of problems which in our more advanced schools we know under the name of domestic science and home economics. The point is that the schooling for both boys and girls should be related directly to the affairs of life.

SPECIAL OR SEPARATE SCHOOLS

While all schools must put themselves in position to relate themselves to their environment and to meet the essential needs of the people, it may nevertheless be necessary to establish special secondary schools of agriculture. Such schools are now established in Wisconsin, Alabama, Georgia, Maryland, New York, and probably elsewhere. These schools cannot meet the needs of all the people, unless they become so numerous as to duplicate the present school

systems; but they can become leaders in putting the subjects into pedagogic form, in arousing interest, and in demonstrating the possibilities of the new education; and even when the common public schools shall have put themselves into line with the new and vital education, these special schools will remain active centers of helpfulness to agricultural interests.

The recent movement in Georgia for the organization of separate industrial and agricultural schools has attracted much attention. By act of the last legislature all fees received from the inspection of fertilizers, oils, and other inspection incomes by the department of agriculture of the state over and above the expenses of such inspection, shall be used as a fund for the purpose of establishing and maintaining such schools, one to be organized in each of the eleven congressional districts of the state. The location of these schools is determined by the interest of the community in the enterprise. The government is authorized to receive donations of tracts of land in any community of not less than two-hundred acres, together with additional gifts in the way of buildings and money. It is most significant of the present interest in secondary agricultural education to know that these district schools were speedily located with large contributions of land, money, and other privileges. The total value of bids from the accepted localities was nearly $850,000, and the bids that could not be accepted amounted to about the same figure. The land in connection with these schools ranges from 240 to 300 acres, and the gifts in cash, electric light, water, and other privileges run from $30,000 upwards. These Georgia industrial and agricultural schools are to be branches of the State College of Agriculture which is a department of the University of Georgia. The general board of trustees of the university is authorized to exercise such supervision as in their judgment may be necessary to secure uniformity of plan and efficiency in the schools. Joseph S. Stewart, professor of secondary education in the University of Georgia, has issued a tentative course of study for the schools. It is expected that these schools will be put into operation as soon as suitable buildings and equipment can be provided.

A movement for agricultural high schools in the province of Ontario has taken a somewhat different form, and a brief record of it may be suggestive and interesting as expressing a kind of organization that does not obtain in the United States. It may be said in passing that distinct progress is being made in the other eastern Canadian provinces in the introduction of nature-study and similar work in the schools. This sketch of the work in Ontario (information furnished by J. W. Gibson) is inserted because of its bearing on the movement for the establishment of separate secondary schools for agriculture.

In the regulations respecting public schools, in Ontario, published in 1896, agriculture is classed as an optional subject for the highest grade of the public school. The only remark concerning the course is "The course in the authorized textbook." Very little attention was given to the subject in those days.

In "Amendments to Regulations for 1900" the following appears:

The public school course of study is amended so as to include agriculture among the

obligatory subjects in all rural schools for forms iv and v (grades 7, 8, and 9), for the latter form the textbooks are to be used by the pupils, but for the former the instruction is to be *by conversation only*.

In common with similar legislation and recommendation elsewhere in Canada and the United States, these early efforts produced results only here and there. A textbook written by C. C. James, the deputy minister of agriculture for the province of Ontario, was prescribed. With the aid of this book and other agencies, a few teachers were able to make the teaching of agriculture practical and interesting and they endeavored to supplement the indoor class instruction by experiment and direct observation. Their influence has had much effect.

It is now about ten years since nature-study began to be discussed by a few enthusiasts at teachers' conventions in Ontario. About five years ago it came more into prominence, received recognition as a pedagogical ideal in the normal schools, and thru them is now being widely introduced in the public schools of the province. Its introduction was almost simultaneous with that of manual training and both owe much to the philanthropy of Sir William Macdonald, which was made effective by the genius and keen insight into the educational needs of the country of Doctor James W. Robertson, then commissioner of agriculture for the dominion.

With the exception of one or two children's gardens, which were the result of individual enterprise, the first school gardens to be established in Ontario were arranged for in 1903 under the Macdonald Rural Schools Fund administered by Doctor Robertson and, during his absence, by H. H. Cowley, M. A., now inspector of continuation classes for the province. Five gardens were located at suitable points in the county of Carleton in connection with five public schools, and a large garden at the Macdonald Consolidated School at Guelph, Ontario. This marks the beginning of experimental agricultural education in connection with public schools in Ontario. These gardens have been maintained for a period of three years by the Macdonald fund. This fund also provided a traveling instructor who directed the work in person. During the time since the Macdonald school gardens began, a number of country schools have established experimental plots for flowers, grains, or vegetables, and the movement is slowly but surely winning its way wherever the people have been directly influenced by it. This year the school gardens received no financial support from the Macdonald fund and could not have been continued but for the moral support of the people and the necessary grants for expenses made by the trustees. As it is, the gardens are in full swing at the present time, the teachers in charge are enthusiastic about the work and are sparing no amount of effort to make it a success and the pupils and parents are pleased that the gardens are likely to be continued. Speaking of the benefits of the school garden, the principal of the Carp public school writes as follows:

> It is impossible to overestimate the value of school gardening on our boys and girls. Instead of being detrimental (as at first supposed) to their advancement in the other branches of learning, it has had the opposite effect. Since engaging in the work my boys

and girls have been first in all examinations, competing with children from other schools including city schools. The whole tone of the school has been improved morally, socially, and esthetically. Our boys and girls have now a reverence for life unknown before and it has awakened in them, as nothing else could do, a deeper interest in all life around them. It has helped to make school life a pleasure. Now the boy makes the excuse to get to school instead of the excuse to remain at home. It has aroused the interest of the entire community. The parents take a pride in "the work of our boys and girls in the school garden," and never fail to bring their visitors to see the work that is being done there. The pupils learn practical gardening and already their advice and assistance is often sought by parents and others interested in the cultivation of plants. Its influence is seen also in the homes of the pupils. Every home has its collection of houseplants inside and its plots and flower borders outside. Our school board has come to realize the value of this work and is anxious to have it continued.

In the *Regulations* of the education department of Ontario issued in 1904, there will be found a very comprehensive course in nature-study and in elementary agriculture. Provision is also made for establishing rural-school gardens "for the purpose of encouraging agriculture and horticulture and also for the purpose of increasing the attractiveness of rural schools." An initial grant of $100 and subsequent annual grants of $10 are given, payable on the report of the inspector, to every school board that provides one acre of land, in addition to the regular school grounds together with the necessary tools and implements for gardening. These regulations will no doubt be revised from time to time as changing circumstances may seem to warrant. As yet, but few school boards have availed themselves of the opportunity offered by the above regulations.

One of the difficulties in introducing this work in Ontario, as elsewhere, has been the great scarcity of teachers who have had any special training for the work. During the last three years a few teachers have taken special training in nature-study work at the Macdonald Institute which is affiliated with the Ontario Agricultural College, at Guelph. Each of the teachers who took the course received a bonus of $100 and traveling expenses, paid, part by the provincial government and part by the Macdonald fund. Altho the number of teachers taking this course has been comparatively small, yet much good has resulted from it and more will result from it for years to come.

The provincial normal schools are now in the process of reorganization. There are three such schools and four new ones are to be added with a substantial increase in the staff of lecturers. It is the purpose to have the science master in each of these training schools qualify for the teaching of agriculture and nature-study. It is expected that instruction in school gardening will be given to all teachers in training. It is hoped that this will mark the beginning of a new era in public-school agriculture in the province.

At the last session of the legislature provision was made for establishing an agricultural department in each of six collegiates or high schools in the province. The grant of $1,000 to each of the six schools is to be supplemented by an equal contribution from the county or county's council in whose jurisdiction the agricultural school is situated. The school board is to provide the necessary

grounds, accommodation, and equipment. The subjects to be taught are such as are usually taught in agricultural colleges and will be so comprehensive that a two-years' course will count as one year toward graduation in the agricultural college at Guelph. It is the intention of the government that the teacher of agriculture will serve the community directly, as well as indirectly. He will have an office in the town in which the school is situated and will distribute literature to the farmers of the district. He will also, from time to time, visit different parts of the district and give lectures on agricultural subjects. If this experiment proves to be successful, it is hoped that in due time every county in the province will have at least one secondary school in which scientific agriculture will occupy a prominent place.

THE NATIONALIZING OF THE WORK

The desire to redirect the educational enterprises in agricultural regions has gained such headway in all parts of the Union that it is beginning to find an expression in Congress and in governmental bureaus. The Davis Bill, for example, introduced into the House of Representatives this past winter, is designed to provide an annual appropriation for industrial education in agricultural high schools and city schools, and also for branch agricultural experiment stations in the states. The bill provides that there shall be paid to each state and territory for the maintenance of instruction in agriculture and home economics in agricultural high schools of secondary grade and for instruction in mechanic arts and home economics in city high schools of secondary grade a sum equal to ten cents per capita of the population of the state or territory. The bill provides that the number of such agricultural high schools which should be entitled to receive the benefits of the act in any state or territory shall not exceed one school for ten counties. The bill also provides for an appropriation to each state and territory of $2,500 for each branch experiment station established by such state or territory. The state or territory is obligated in such case to expend annually for equipment and maintenance of such stations a sum at least equal to $2,500.

The United States Department of Agriculture thru its office of experiment stations is interested in furthering the work of agricultural education in the public schools of the country. To that end it maintains an expert and issues publications.

The Department of the Interior through the bureau of education is also actively interested in agricultural education as a phase of our industrial development and is proposing to issue bulletins that have specific bearing on some of the practical problems at issue.

The subject of agricultural and other industrial training in schools is receiving increased attention from teachers' conventions and also from educational conferences of all kinds. It was noticeable that more attention was given to industrial training in rural schools at the last Southern Education Conference than to any other single phase of education. These facts are concrete expressions of the trend of public opinion; this trend is an expression

of the feeling that education should be related directly to the affairs and necessities of life, preparing a person to live more effectively while pursuing his daily occupation.

THE SMALL RURAL SCHOOL

It is probably impossible, or at least impracticable, to introduce separate industrial subjects as such, especially agriculture, in the rural schools at present, particularly in the one-teacher district schools. Here and there a consolidated school employing two or three teachers will be able to have a special teacher of science or agriculture, but such instances will be few for many years to come.

It is practicable, however, to make local applications of the customary schoolwork to sufficient extent to meet all present demands. Let us suppose that fundamental subjects are reading, number, geography, manual training. All of these subjects can be given distinctly local and agricultural application. Good and direct application can be given in the number work and the geography work for example. After the pupil has learned the principles of arithmetic, which really are few, the remaining practice can be given just as well by means of local and agricultural number work as by means of co-partnership, middleman, and theoretical problems which now form the chief part of our textbooks. Many problems of soil fertility, soil moisture, the feeding of animals, combating insect pests, handling and marketing produce, accounting of farm enterprises, are essentially mathematical in their nature. One year's work in arithmetic could be given such an agricultural trend as, in the course of a generation, to redirect the agriculture of any state.

Good geography teaching now begins with the local environment and works out toward the universe. In former days it began with the universe and worked in toward the earth. The old methods reversed the natural processes. Now, the local environment in the agricultural country is made up very largely of farms. The principles of geography can be taught in terms of the affairs of the community in such a way as to satisfy all the requirements of agriculture in the one-teacher rural schools for the present time.

Manual training may be very largely school gardening (as already suggested), with exercises in making and caring for tools, making labels, painting, building fences, and doing a thousand and one other things that have direct application to the daily life. To be sure, many or most of the pupils in the rural schools already have manual training at home in the customary chores and other farmwork; but in order to make the home handwork educational, it should in some way be touched by the teacher. It is perfectly possible to discuss this ordinary labor in the school, to suggest better methods and to dignify it. We must distinguish between manual labor and manual training.

IN WHAT SCHOOLS AGRICULTURE MAY BE TAUGHT

In every state there should be one strong, central agricultural college which is well enough equipped to conduct the highest and best type of work in all agricultural lines with ability and enthusiasm. This college, however, cannot

be expected to carry all the rural educational activities of the commonwealth. At present, the agricultural college is called on to do primary and secondary schoolwork in the way of nature-study propaganda, winter courses, and otherwise. In time, some of this work will be done by other institutions, altho it is probable that the agricultural college, if it rises to its full opportunities, will always be the capstone of the movement for education for country life. What some of these other secondary educational enterprises may be we may now consider:

(1) The first purpose in all primary and secondary instruction should be to utilize to the fullest the general educational system of the state. All schools of the state should be open to nature-study, agricultural and other industrial work on the same conditions and terms that they are open to literary and traditional subjects. It does not follow that the industrial work should be mandatory. The reasons for utilizing the existing school system are obvious. The systems are already organized and are completely established in public opinion. Again, industrial work in the common schools should be looked on as a broad educational enterprise and not as mere training or technical or apprenticeship work. It should be recognized as such by being placed in the public schools along with other subjects. Industrial education would gain immensely in its general purpose and effect and its intention if it is thus associated with other subjects. It does not follow that because a pupil is studying a subject that pertains to the farm, he is to be a farmer. The subject is introduced in order to educate him broadly, to widen his sympathies, and interest him in the problems of life.

It is probable that the public-school system cannot meet all the demands for agricultural education; but even if it cannot do so its influence will have a tremendous effect in arousing an interest in country-life subjects and in elevating the general tone of industrial education. If the common-school systems cannot handle the agricultural work efficiently, then we shall need to develop other agencies, and some of these agencies may now be mentioned. These other agencies ought to be connected in some way with the general educational system and not be separate or parallel and competing systems. All educational work should be related and unified and made consistent.

(2) While desiring to associate the agricultural work with existing institutions, we may next consider the feasibility of introducing it in the normal schools. We are at once met with a difficulty in the fact that the phrase "normal school" does not designate the same kind of institution in different states. These schools have differentiated during the past generation until they may not be strictly comparable in different regions. What may be found to be practicable in one region, therefore, may be impracticable in another. In parts of the west the normal schools find it possible and advantageous to associate agricultural work with the traditional curriculum. In the east this is less possible, largely because of the great population of the cities which demands more teachers than the normal schools can supply. These normal schools, having their

capacities taxed to the utmost in the accustomed work, may or may not find it to their advantage to add new departments of a wholly original character.

(3) Another class of existing institutions comprises the colleges and universities of many different grades and kinds. There is a distinct tendency in many parts of the country for even denominational colleges to introduce agriculture and other industrial work. In some states it is possible that the establishment of such departments in these colleges will, in part, satisfy the needs of the state.

(4) Finally, a wholly new kind of school may be organized for the explicit purpose of teaching agriculture, domestic science, and related subjects (as we have already discussed). Such schools are represented by the schools in each of the nine congressional districts of Alabama and by the county schools that are organized and yet to be organized in the state of Wisconsin. These schools have many advantages. They can devote all their energies concretely to one line of effort. They are single and therefore conspicuous, and are not bound by tradition. They have a definite territory in which to work, the boundaries of which they can fill with good extension work. These schools usually have land and, being set aside for a specific object, they develop a first class equipment which enables them to carry the work with great efficiency. The disadvantage is that they are segregated from other educational enterprises and therefore are likely to become somewhat narrow. They cannot be expected to serve all the persons of the county or district needing country-life education, for relatively few of the children in the district can attend this school without sleeping away from home; and children fifteen years and under would better sleep at home. They are likely to become largely a local school for the town in which they are situated.

None of these agencies, with the exception of public schools, meet the needs of training for children in the primary and intermediate grades. Whether a special kind of school will be developed in time for industrial training for the younger children is a question. It would seem that everything should be left to the existing public-school system until that system proves its inability to meet the demand; as fast as that inability develops, new agencies of one kind or another must be evolved to cover the need.

There is another way whereby agricultural work can be brought to the people, and that is thru the training-classes and training-schools. In New York State, for example, there are 102 training-classes and a number of training-schools. These training-classes are to be instructed in the entire elementary syllabus and this syllabus comprises nature-study and agriculture. The pupils in the training-classes are the ones that are likely to go directly into the rural schools. In New York State, and in many other states the normal-school teachers do not become rural-school teachers to any extent. The teachers of these training-classes are normal-school graduates. It would be better if they could have their training in agriculture and nature-study in the normal schools themselves; but whether they have school training in these subjects

or not, they will be obliged to prepare for the work if they are forced to teach it to their training-classes.

The general conclusions of the commission on Industrial and Technical Education of Massachusetts, 1906 (the whole report is a most valuable contribution to the discussion of industrial education), are as follows:

> There seem to be two lines in which industrial education may be developed—thru the existing public-school system, and thru independent industrial schools. In regard to the former, the commissioner recommends that cities and towns so modify the work in the elementary schools as to include for boys and girls instruction and practice in the elements of productive industry, including agriculture and the mechanic and domestic arts, and that this instruction be of such a character as to secure from it the highest cultural, as well as the highest industrial, value; and that the work in the high schools be modified so that the instruction in mathematics, the sciences, and drawing shall show the application and use of these subjects in industrial life, with especial reference to local industries, so that the students may see that these subjects are not designed primarily and solely for academic purposes, but that they may be utilized for the purposes of practical life. That is, algebra and geometry should be so taught in the public schools as to show their relations to construction; botany to horticulture and agriculture; chemistry to agriculture, manufactures, and domestic sciences; and drawing to every form of industry.
>
> The commission would also recommend that all towns and cities provide by new elective industrial courses in high schools, instruction in the principles of agriculture and the domestic and mechanic arts; that in addition to day courses cities and towns provide evening courses for persons already employed in trades; and that provision be made for the instruction in part-time day classes of children between the ages of fourteen and eighteen years who may be employed during the remainder of the day, to the end that instruction in the principles and the practice of the arts may go on together.

II. INDUSTRIAL WORK IN RURAL SCHOOLS IN NEW ENGLAND, NEW JERSEY, PENNSYLVANIA, AND NEW YORK

All the states in the above group are interested in the introduction of industrial work into the rural schools but in no one of them is such work now established as an organized plan or system. The official departments of public instruction, the agricultural colleges, and the enlightened constituency of the states all feel the need of work that is adapted to the country pupil. This sentiment is rising rapidly, but it is not yet crystallized. No person seems yet to have devised any system or scheme whereby these subjects can be introduced with any great degree of satisfaction.

The industrial training-work that seems to be possible in the rural schools is of four general categories: (1) manual training of all kinds; (2) nature-study work; (3) agricultural work; (4) some form of household or domestic work applicable chiefly to the girls.

A discussion of these subjects may properly fall under three general heads: (1) what these states officially are doing thru their departments of public instruction; (2) what individual persons or schools are doing in an independent or unattached way; (3) some conclusions or personal opinions drawn from the foregoing and other facts.

Definite statements have been secured of the attitude of state departments of education.

The eighteen inquiries suggested by the chairman of the committee of a year ago were sent to the departments of public instruction or education of the nine states comprising the above group, excepting New York. The official attitude of these states may now be briefly expressed.

1. MAINE

The state of Maine has adopted an extensive syllabus for nature-studies from the first grade thru the nine grades. This syllabus is very largely agricultural. The state law requires teachers in rural schools to pass an examination in agriculture. The state law has required industrial education for some fifteen years. The course of study, including the nature-study and its agricultural bearings, is generally adopted in the country schools and some results are beginning to be obtained. There are no special schools in the state designed to train teachers for this particular kind of work. A number of cities in the state have given special emphasis to the industrial work but apparently none of the rural districts have given great attention to it. The superintendent of public instruction for Maine thinks that school gardening is the most feasible and valuable part of the work for the present. The School Improvement League of Maine does much work in the line of agricultural and other industrial training. The five normal schools also do regular work in agriculture.

2. NEW HAMPSHIRE

The *State Program of Studies* has outlines of work in both nature-study and elementary agriculture. This document has been published about eighteen months, and either it or its equivalent is in use by about 75 per cent. of the enrollment of the state. A considerable proportion of these schools follow the course of nature-study substantially as it is here laid down. Generally speaking, however, much better work in this subject is done in the cities than in the country towns, owing to the generally superior quality of the teachers in the urban sections.

The course in elementary agriculture is being adopted tentatively here and there about the state, largely depending upon the personal interest and ambition of the teacher. It is impossible to say just how extensive this work is, or how well it is taught. I have not very much confidence in the quality of the teaching as yet.

At the State Normal School and in several of the cities and larger towns good work in school gardening is done, and in most places the same is made an integral part of the work of the school, being closely correlated with arithmetic, drawing, nature-study, and so on.

The central control of the common-school work is at a minimum in New Hampshire; it could scarcely be less. The local school board is supreme in all matters relating to the common schools, and the function of the state superintendent is, in the main, purely advisory.

In the case of secondary schools it is different. All secondary institutions, in order to be recognized as public institutions, must be approved

by the state superintendent as being of college preparatory grade, or the equivalent. When so approved, each institution can legally collect tuition from towns not having similar schools, to the extent of forty dollars a year for pupils attending from such towns. This gives an excellent opportunity for development along the lines of secondary education, and the development has been rapid and thorogoing. The attendance at secondary schools increased about one-sixth in the last two years.

The state department will approve any curriculum deemed to be the equivalent in educational values of the curricula generally accepted for college preparation. For instance, during the present year one city high school has been approved for a thoro mechanic-arts curriculum, several for commercial curricula, and two schools for agricultural curricula. In each of these schools it is a condition of approval that the equipment shall be sufficient and the training of the teachers adequate for substantial and thoro instruction in the subjects approved.

Two institutions, one a high school and the other an academy, have adopted curricula in agriculture for the current school year. In both cases, these curricula are under the direction of trained agriculturists, and are approved as the full educational equivalent of the other curricula in the program of the same school.

The case of the academy named is typical of what ought to come to pass in a large number of our rural secondary schools, and what probably will. This institution, Gilmanton Academy, situated in a good farming region, has had a history of over one hundred years as a strictly classical institution. As such, it has in years gone by educated many students for Dartmouth and other colleges. In recent years the section of the state in which it is located had become greatly depleted in population, and interest in the school had greatly diminished. At the beginning of the current school year, the trustees laid out a two-curriculum program, one curriculum being the typical Latin-scientific course and the other the course in agriculture. A competent agriculturist was employed as principal, and, altho it is the day of small things, the situation is promising. The school is hampered by lack of endowment, its former substantial endowment having been lost thru unfortunate investments; but new funds are slowly being established thru interest of the alumni of the institution. The school is entitled by law, as above indicated, to forty dollars per pupil, the same to be paid by the towns from which there are pupils attending the institution.

It is hoped and expected that next year some land may be taken up for practical fieldwork.

It is the aim of the trustees of the institution, of whom Professor J. W. Sanborn is a prominent member, to furnish an education which will meet the farm boy on the line of his established interests and seek to keep him in the country rather than encourage him with false hopes of professional splendor in the city.

The state department of public instruction is interested in the movement for industrial and agricultural education, and it is the belief of the present head of the department that the industrial future of the eastern states depends in a very large degree upon the ability of the public-school system to turn out highly intelligent farmers, mechanics, and other workers.

The New Hampshire College of Agriculture and Mechanic Arts has been of invaluable assistance to the department of public instruction and also to the institutions interesting themselves in this line of work.

3. VERMONT

No organized official effort has yet been consummated in the state looking to agricultural education in the rural schools. There is a decided awakening all over the state, however, in the subject, especially in the Grange, which is very strong in Vermont. Mason S. Stone, superintendent of education, presents the subject at all teachers' meetings and he expects that within a very few years a distinct, systematic movement will be under way. He writes,

> We are engaged in a campaign for the awakening of a larger interest in industrial education in Vermont. It is not our purpose in any way to direct what shall be done until we have an organized public sentiment. I am confident that the state is alive to the need of a more practical education, especially along the lines of agriculture.

4. MASSACHUSETTS

No systematic movement is yet under way in Massachusetts, but a commission on industrial education has been appointed and is formulating plans for agricultural and other industrial schools. There is a very general interest in nature-study and school gardening in Massachusetts and some of it has agricultural bearings. Some slight advantages are offered in normal schools for the preparation of teachers for these subjects. The agricultural college is expecting to organize a department of rural education, including normal- and summer-school work.

The normal work in the agricultural college is authorized by an act of the legislature of 1906,

> For the purpose of giving instruction in the elements of agriculture to persons desiring to teach such elements in the public schools, as provided in sections three and four; provided, that the cost of such department shall not exceed the sum of five thousand dollars in any one year, and that at least fifteen candidates present themselves for such instruction.

The state of Massachusetts has just established a commission on industrial education, composed of five persons, with the following duties:

> The commission on industrial education shall be charged with the duty of extending the investigation of methods of industrial training and of local needs, and it shall advise and aid in the introduction of industrial education in the independent schools, as hereinafter provided; and it shall provide for lectures on the importance of industrial education and kindred subjects, and visit and report upon all special schools in which such education is carried on. It may initiate and superintend the establishment and maintenance of industrial schools for boys and girls in various centers of the commonwealth, with the co-operation and consent of the municipality involved or the municipalities constituent of

any district to be formed by the union of towns and cities as hereinafter provided. The commission shall have all necessary powers in the conduct and maintenance of industrial schools, and money appropriated by the state and municipality for their maintenance shall be expended under its direction.

All cities and towns may provide independent industrial schools for instruction in the principles of agriculture and the domestic and mechanic arts, but attendance upon such schools of children under fourteen years of age shall not take the place of attendance upon public schools as required by law. In addition to these industrial schools, cities and towns may provide for evening courses for persons already employed in trades, and they may also provide, in the industrial schools and evening schools herein authorized, for the instruction in part-time classes of children between the ages of fourteen and eighteen years who may be employed during the remainder of the day, to the end that instruction in the principles and the practice of the arts may go on together; provided, that the independent schools authorized in this section shall be approved as to location, courses, and methods of instruction by the commission on industrial education.

Two or more cities or towns may unite as a district for the maintenance of the industrial schools provided for in the preceding section, but no such district shall be created without the approval of the commission on industrial education.

Whenever any city or town or any district, as provided in the preceding section, shall appropriate money for the establishment and equipment and maintenance of independent schools for industrial training, the commonwealth, in order to aid in the maintenance of such schools, shall pay annually from the treasury to such cities, towns, or districts a sum proportionate to the amount raised by local taxation and expended for the support of schools for each thousand dollars of valuation, as follows: cities and towns expending more than five dollars for each thousand of valuation for the support of public schools to be reimbursed by the commonwealth to the amount of one-half, those raising and expending between four and five dollars per thousand to the amount of one-third, and those raising and expending less than four dollars per thousand to the amount of one-fifth, of the cost of maintaining industrial schools; provided, that no payment to any city or town shall be made except by special appropriation by the legislature.

The commission on industrial education shall make a report annually to the legislature relative to the condition and progress of industrial education during the year, stating what industrial schools have been established and the appropriations necessary for their maintenance, in accordance with the preceding section, and making such recommendations as the commission on industrial education may deem advisable; and especially shall the commission consider and report at an early date upon the advisability of establishing one or more technical schools or industrial colleges, providing for a three- or four-years' course for extended training in the working-principles of the larger industries of the commonwealth.

5. RHODE ISLAND

Nature-study has been generally introduced into the schools of Rhode Island. Manual training and domestic arts have a place in many schools.

Nothing definite has been done in elementary agriculture except the propagandist extension work which is issuing from the agricultural college at Kingston. The fact that there are only 197 ungraded schools, out of a total of 1,635, shows a small number of rural schools and a relatively small interest in agriculture. The state commissioner of public schools is in favor of industrial work in the schools and the subject is being agitated.

6. CONNECTICUT

The state board of education of Connecticut is making an organized movement to introduce natural science into the rural schools. It is expected that

this will afford a foundation for nature-study and agriculture and domestic art. The distinctly rural schools are generally small, ranging from six to twenty-five scholars under one teacher. The state board is circulating books and scientific apparatus to the rural schools, all pointing toward agricultural instruction. It is felt that the essentials of education need more attention at present rather than specific industrial training. There is a general interest in the subject of agriculture in the schools but no systematic movement is on foot. All the normal schools in Connecticut are emphasizing agriculture under the head of botany but in connection with other subjects in the science department; that is to say, they make agricultural applications of their work so far as they can.

7. NEW JERSEY

The state law of New Jersey provides that any school district that establishes by special tax or subscription or both a department or school for industrial or manual training shall receive a like sum for original equipment and also for subsequent maintenance from the state, providing the sum is not less than $250, nor more than $7,500. In carrying out the above provision it is held by the superintendent of public instruction that work in agriculture is included. The present act was amended in 1903. As early, however, as 1881 a similar act was passed with the lower limit of money to be raised by the community, $3,000. Thus far no district in the state has ever taken advantage of this help for providing instruction in agriculture. The superintendent has done much to encourage the teachers of the state to interest the schools in the study and pursuit of agriculture by means of pamphlets on school yards and school gardens.

The county superintendents of the state are engaged in formulating a practical course in elementary agriculture to be taught in their respective counties. The Department of Agriculture in connection with the state agricultural college is co-operating with the Department of Public Instruction with a view to popularizing the work of agriculture directly in the interest of the improvement of rural schools. It is further intended during the coming year to maintain summer schools at the state college and at other convenient points in the state in order that teachers may qualify themselves to teach this branch.

It is also the purpose of the state board of education within a reasonable time to add the additional subject of elementary agriculture to the subjects now required in which a teacher must be examined in order to be licensed to teach in the schools of New Jersey. There seems to be thruout the entire state a general awakening in regard to wants and needs of the rural schools.

8. PENNSYLVANIA

There is a strong feeling in Pennsylvania that systematic instruction in agriculture, manual training, and domestic science is hardly possible in the rural schools, according to the superintendent of public instruction. The real trouble is found in the fact that the salaries in the rural schools are not

large enough to attract teachers who are qualified to adapt this kind of instruction to the pupils. Moreover, there are very few teachers who are qualified. Nature-study is not included in the curriculum as a separate branch of instruction. Three summer schools have attempted instruction in botany, zoölogy, and nature-study for the distinct purpose of enabling teachers to give this kind of information to their pupils in an incidental way. The Pennsylvania State College once issued nature-study lessons, but because of insufficient funds the publication of them has been suspended.

9. NEW YORK

A distinct organized movement looking toward the introduction of agriculture into the schools of New York is now under way. The state education department has adopted a syllabus for nature-study and agriculture running thru all the first eight grades. It has also adopted a syllabus on agriculture for one year, preferably the second, in the high schools. In the elementary syllabus nature-study runs thru the first five years. At the sixth year distinctly agricultural work begins, but it is a natural consequence of the nature-study work and follows the nature-study method. Nature-study and agriculture are not mandatory in the schools. However, the training-classes, of which there are more than one hundred in the state, are obliged to cover the entire syllabus, including nature-study and agriculture. The teacher of the training-class, therefore, is obliged to prepare on the nature-study and agricultural work. All of the training-class graduates go directly into the rural schools.

The education department of the state has three lecturers who are continuously with the farmers' institutes speaking on education, for the purpose of elevating the general tone of the schools and preparing them for industrial and other work. The farmers' institutes themselves, which are very efficiently managed, are well organized in respect to the schoolwork. The state Grange, with more than 70,000 members, has also taken definite action looking toward interesting schools in local education. The State College of Agriculture, at Cornell University, has also in hand many enterprises having the same end in view and has published more literature in the line of nature-study and similar subjects than any other agency in the United States.

As yet there is no institution in which teachers are definitely trained for the rural-work except the special nature-study course of two years' duration in the College of Agriculture. The teachers in the training-classes are normal-school graduates, but the normal schools are not introducing agriculture. As soon, however, as the training-classes begin to work over the elementary syllabus the demand for some specific means of training teachers for the rural schools, and especially for the training-classes, will be felt. At the summer schools held under the auspices of the education department, of which there are two or three each year, the nature-study work is ordinarily emphasized particularly at Chautauqua. Some hundreds of teachers in New York State are enrolled with Mrs. Comstock of the College of Agriculture in a home correspondence course; many thousand children are organized into junior

naturalist clubs, each club being under the general guidance of a teacher; and many thousand children are enrolled in a campaign for gardening.

The beginnings of a normal department have been made in the State College of Agriculture, at Cornell University. This is a special two-years' course designed for the training of teachers in nature-study and agriculture. The work is in two parts: the regular academic or subject-matter in the biological sciences; the practice-work with children. This practice-work is conducted in the public schools of Ithaca which are accessible for this purpose. There are also rather extensive school gardens in the City of Ithaca which are under the joint managership of the College of Agriculture and the public schools. In these gardens the teacher-students may receive instruction. The College of Agriculture recently erected a rural-school building on its campus and it is the purpose to organize a regular rural school with children coming from the adjacent farming-country. School gardens and playgrounds are being established in connection with it. It is the plan of the College of Agriculture to organize a summer school (with the expectation that it may be open in 1908) for teachers in agriculture and country-life subjects.

A crystallized movement is now on foot in New York looking toward the better supervision of rural schools. Two bills are before the legislature outlining plans of reorganization. The general purpose is to establish an educational qualification for supervisory officers; to remove the election of such officers, so far as possible, from political influences; to provide that such officers shall devote their entire time to the work of supervision; so to reorganize the districts that they shall be small enough to enable the supervisory officer to inspect the work of each school at least once each month.

In 1906 the legislature of the state appropriated $80,000 for buildings for a school of agriculture at St. Lawrence University, at Canton, in the northern part of the state. Buildings will be erected in 1907.

The Belleville Academy, in Jefferson county, has a small endowment for the teaching of agriculture. The subject is taught in connection with the natural sciences.

III. EXPERIENCES AND OPINIONS OF INDIVIDUAL TEACHERS IN THE PRECEDING TERRITORY

It will be impossible to assemble all the experiences in any one state. Many teachers have tried industrial training of one kind or another and with varying degrees of success; but no record may have been made of it. Teachers come and go. In the course of a large correspondence, however, a number of experiences and opinions have accumulated, some of which may be recorded.

MAINE

W. M. Munson, professor of horticulture in the University of Maine, is of the opinion that the teachers must first be aroused and equipped to the end that they may introduce informal exercises. We are now overloaded with textbooks. The agricultural colleges and superintendents of public instruction

may do a work of untold value by issuing schedules and suggestive leaflets from time to time and by making such work prominent in summer schools and at teachers' institutes. Personal contact rather than textbooks or scheduled courses must be relied on to awaken an interest in young children. Three or four teachers in the state have had definite experience in this kind of work and have made more or less of a success.

Mrs. V. P. DeCoster, Buckfield, writes as follows:

My work has not been systematic, and the results are difficult to know. I am a farmer's wife, with a family of children, and have had a nature-class at home, and at the nearby rural school, using as aids the Cornell and Kingston leaflets. Have also given lectures before Granges, clubs, pomological and horticultural meetings, teachers, etc., and thus organized some nature-classes and interested others. I notice everywhere the interest is spreading, but find little practical work in our rural schools. The teachers are mostly ignorant or indifferent and overworked along other lines. Our normal schools and colleges give them only superficial training. There is better work done in our cities. I do not know if it would be practical or whether the money could be raised, but it seems to me that a specially trained teacher could do fine work by having a central manual-training school in a village high school and also supervise school gardens and agricultural work in quite a number of rural schools. I find that lessons amount to little unless the scholars do personal work. I have tried giving them seeds and found they did not take half the interest that they did when they earned them and made their own garden. One little girl even had a tooth pulled without gas that she might save the extra cost with which to buy tulip bulbs.

Mr. Irving D. Bragg, principal of the Aroostook State Normal School, at Presque Isle, writes as follows:

The normal schools of Maine have taken up work in agriculture this year. The schools have been left to work out courses as seem best adapted to the particular locality. In this school the subjects of zoölogy, geology, bird-study, nature-study, chemistry, and botany are treated with special reference to agriculture. In the last term a textbook is used as a guide. This is, of course, only a beginning, and as soon as possible the scope of the work will be enlarged to meet the demand for work of this kind. Manual training has not been introduced into this school yet. Owing to the seasons in this part of the country, school gardening cannot be carried on very successfully during the school year. Consequently, little is done along this line. It is the policy of this school to introduce the above subjects as rapidly as possible, considering the needs and demands of the section of the state in which we are located.

NEW HAMPSHIRE

The State Agricultural College is co-operating with Hon. H. C. Morrison, state superintendent of public instruction, in suggesting curricula for the public schools in which agriculture is introduced. The outline of studies for the grammar grades has already been published and the college is now working on an agricultural course for high schools. There are probably no high schools in the state in which the work is actually being carried on. Thru the influence of Professor C. M. Weed (who has now left the state) much interest was aroused in many schools in the subject of nature-study.

Professor G. H. Whitcher, of Berlin, at one time introduced local work into one of the rural schools and continued it until he removed to a city. He expresses his experience as follows:

I fully believe the country is the place to start this rather than the city, because it is there that the child becomes a systematic observer of farm operations; the dairy, etc., harvesting operations, planting, etc., all afford opportunity for "laboratory" work and observation and schoolroom experimentation then comes in to supplement and explain the things observed.

My plan commenced with the first grade with modeling, drawing, and coloring farm products, e. g., potato, apple, beet, etc., and developed up to pot experiments in the eighth grade with fertilizers, etc. I do not think this work is attractive to city pupils because their "experience" is inadequate to interpret results observed. The Herbartian view of the "apperceiving mass" of ideas as essential to the proper assimilation of new sense material seems to justify the belief that country children are best provided with this "mass."

More than ever I believe that rural schools ought to utilize the home industry as a means of awakening the young minds. It seems strange that our theories of education should be based on the notion of utilizing the environment and yet our practice in the country seldom utilizes the one great industry, agriculture.

MASSACHUSETTS

Much excellent nature-study and school-gardening work is being conducted in various schools in Massachusetts. There are few places apparently in which it is given a distinctly agricultural aspect in the rural elementary schools. Professor W. A. Baldwin, principal of the State Normal School, at Hyannis, made the following suggestions for an industrial high school to the commission appointed by Governor Douglas to investigate the question of the establishment of trade schools in Massachusetts.

The following plan seems to me to be feasible for adoption in the near future:

1. I would like to see the state of Massachusetts establish a school in the country adapted to the needs of the children of the country.

2. It should receive children of high-school age from the town in which it is located and from neighboring towns.

3. It should teach boys and girls how to make a success of farming, gardening, fruit-growing and poultry-raising in Massachusetts. This industrial training should be supplemented by such training in science, literature, and sociology as the ordinary farmer needs.

4. The school should start on a large tract of abandoned farm land.

5. The improvement of land, construction of buildings, etc., should be done by the students.

6. The school should from the first be in close touch with the community, both giving and receiving suggestions and encouragement.

Some of the reasons why such a plan as the above seems to me a good one with which to start this movement are as follows:

1. The need for such work exists in the country as well as in the city.

2. Such a plan will not meet with opposition on the part of labor leaders.

3. It would not be an expensive experiment.

4. It would serve as a pattern for the various towns of the state.

5. Towns desiring to follow this example might be granted state aid for the maintenance of similar schools.

6. If the plan works out satisfactorily it will be easy to modify it, applying the same principles to different forms of work adapted to the needs of one manufacturing city.

7. Time will be given for the careful study of the problem and for the conversion of labor leaders to the trade school idea.

8. Such a school would be full of valuable suggestions for public schools of grammar and high-school grade.

Mr. Baldwin adds the following suggestion:

I believe myself that the nature-study and school-garden work which is being done in the lower grades of some of our schools is much more far-reaching in child development than the work suggested for pupils of high-school grade. Is there not chance in the present demand for industrial training of neglecting the work which is appropriate for children of the primary and grammar grades? In these grades agriculture must be conducted at a loss financially, but the effect upon the developing soul is not to be computed. On the other hand, no other point in our public-school system is now so weak as the high school.

Professor E. F. Howard, superintendent of schools, East Northfield, Mass., writes as follows:

I have thought about this matter much, with special reference to my own district. My towns are all rural, and the children are from farmers' homes for the most part. I have thought that it is hardly possible to do work in the rural schools that could properly be called agricultural; we do nature-work, and that is a good preparation for the other work when the pupils are old enough to undertake it with some prospect of making a success of the study. The principles involved are so difficult, and considerable knowledge of chemical actions so necessary to a thoro understanding of agriculture, and so much judgment is required in applying the knowledge acquired that it seems to me the whole subject demands more intellectual power than is found outside of the high schools. The difficulty with which we should be able to obtain teachers who have the knowledge required, and who have the enthusiasm absolutely indispensable for success in this line of work, is so great that I do not think we shall ever have more than an occasional success in our rural schools as now organized.

I am handing you some pamphlets that will indicate a line of work in which I am interested. The course in sewing is being wrought out in some of my schools, and I am planning a course of work in wood and one in blacksmithing that can be wrought out by boys at home either with or without the supervision of the school. It is my thought that much may be done under the inspiration of the school even though it be not directly under its supervision. These particular courses are to be presented by the Valley Fair, but I am hoping to make the fair my ally in getting the work started in my schools. I have feared that almost any course that we should find published would be too heavy for my schools. We need the simplest things to start with, always having in mind the fact that the work must be made to appeal to the parents, who look with doubt upon any new thing in the way of schoolwork. I have tried to get into my courses useful things and things that would appear valuable almost every day of a farmer's life. I have models of my course in blacksmithing, but not in woodwork.

I do not think much work is being done in this county—Franklin—in the study of agriculture at present. Superintendent G. A. Grover, Charlemont, has made use of a book somewhat, just how much I do not know. Superintendent E. W. Goodhue, Haydenville, has had some experience with home gardens, for which he has furnished seeds. Superintendent A. L. Hardy, Amherst, has had some experience with the ordinary school garden. I do not favor the school garden for *rural* schools. The care of it in summer when school is out would be fatal to success—the boys have too much work at home. I do favor the home garden under school inspiration, but most of the homes have good gardens, and the boys get all the work they want in them under parental supervision. I do not think there is much education in the work, however. If we could get the boys started in agriculture in such a manner that they would be made to see the dignified and scientific side of it, and if it could be so conducted that they could escape the *laborious* and *slavish* toil of it, there would be some hope for their future choice of this calling.

G. Alvin Grover, superintendent of schools at Charlemont, writes:

I have used, for the past two years, in the intermediate and grammar grades of my mixed country schools, Burdet, Stevens, and Hill's *Agriculture for Beginners*, Ginn & Co. This has been used as a supplementary reader with the information side made very prominent. Children have been urged and encouraged to put in practice in their own home gardens and about their premises, the suggestions made in this volume, and *to report results at school.* They have *voluntarily* done this to a gratifying extent. In some instances when conditions were favorable, school gardens have been started and experiments made therein. Some of the pupils have concluded from these experiments that they know more than the authors of the book. *All* seem to enthuse over the subject, and the interest is marked. The only opposition comes from those parents who are "Grand-daddy blind." The coming spring we expect to make more definite requirements. I am planning a corn contest. The boys are to plant the corn at their own homes, and in the fall enter not less than six ears in competition for a suitable prize at our Agricultural Society Fair. I have also arranged for the judges (adults) when awarding premiums on all kinds of stock, to be accompanied by a committee of boys, who shall make their awards independent of the judges. I am not an ardent advocate of school gardens. I rather think it better that each pupil should have a garden of his own at home. I know of no more effectual way of uniting the school and the home.

In regard to industrial training, it is my belief that the day is far off when we can put manual training into our rural schools, as a separate and independent addition to the curriculum. I do think that the pupils can profitably be encouraged and required to make both at home and school those things of which they read and study in their regular text-books, or at least models or representations of the same. For instance, boys in the fifth grade, when they read of Eli Whitney's cotton gin, are required to make at home, a machine that will illustrate the principle. I could show you Lincoln's log cabin, the pyramids of Egypt with the Sphinx, maps of all kinds molded in relief, a logging camp, the Clermont (Fulton's first steamboat), and so on. We have done some basketry and embroidery, but in no case is it allowed to interfere with the regular work. We find that the work is done more quickly and in a better manner, when we hold the manual training out as an inducement.

Writing a year later, Superintendent Grover says:

Our corn contest referred to last year was a complete success, more than 70 per cent. of the boys voluntarily entering the same, and over half of that number actually making an exhibit. At the same time the girls entered a flower contest conducted in the same manner and with equally good results.

Because of lack of co-operation on the part of the adults, it has not been possible to carry out the plan of instructing the boys in livestock. We are going to try again this year, and keep on trying until we meet with success.

E. W. Goodhue, superintendent of schools at Haydenville, writes as follows:

Last year all towns in this district united in attempting some instruction in the rudiments of scientific agriculture. Textbooks for reference were placed in nearly all schools and seeds furnished the pupils at a fraction of actual cost. Blanks on which were to be recorded by the pupil his observations of plant growth, effects of different soils and fertilizers, together with a statement of final results were also supplied. These, when filled, were returned to me. The results, while not fully up to our expectations, were good and there was abundant evidence of careful cultivation of the gardens and thoughtful observation. We are greatly encouraged and shall continue the work this year. One boy, of about ten years of age, who purchased fifteen cents' worth of seeds reported that he had sold from the crops three dollars' worth for cash besides retaining sufficient for family

use. For some reason there appears to be less interest manifested in the matter in the strictly farming communities than in the larger manufacturing places.

Following is the blank on which the pupils' records were made.

Please answer the following questions as fully as possible and return this sheet to your teacher after harvesting the crops.

What varieties of seeds did you receive?
At what time did you plant them?
In what kind of soil were they planted?
(Soil may be designated as clayey, sandy, ordinary loam, or mixed.)
Were the seeds planted on newly ploughed greensward or on land under cultivation the previous year or for several years?
What fertilizer, if any, did you use?
Were the plants attacked by worms, bugs, beetles, or other pests?
If so attacked, by what, and how did you rid the plants of them?
Did you plant seeds in hills or drills?
Did you keep plants well hoed and cultivated?
Was the season unusually wet, dry, cold, or warm?
At what date or dates did you harvest the crops?
What amount of each variety was harvested?
Can you give an idea by measuring the plot planted of the yield per acre?

Remarks:
Anything you can say relative to growth, cultivation, and habits of the plants, or the results of experiment with fertilizers and methods of cultivation, etc., will be of interest.

Name. School,
Grade, Age,

Professor Clarence M. Weed, State Normal School, Lowell, writes:

I think there are a good many schools in New England that are teaching agriculture, or nature-study from an agricultural point of view. I presume you know of the work that is being done in the Boston schools and vicinity, especially in Mr. Henry L. Clapp's school and in connection with the Boston Normal School; also the special stress which is laid upon the school-gardening work at Hyannis and Bridgewater; and I doubt not practically all the Massachusetts normal schools are doing much in this direction. I am laying special emphasis upon it in our work with the normal pupils and am developing it in the practice schools at Lowell and Lawrence as fast as circumstances will permit. I presume the report of the school-garden exhibit and conference held at the Massachusetts Horticultural Society last fall would give you fuller data in regard to New England conditions than you can get in almost any other way. In our own city work we are as yet devoting our attention chiefly to raising plants for the home gardens, encouraging each pupil so far as possible to have a home garden, and we are concentrating our main attention at present upon the fourth grade, which, under our conditions, where so many children leave to work in the mills before reaching much higher grades, seems desirable. The recent modification in the factory laws may make it desirable to put more of the work in the fifth grade.

A school-gardening movement has developed at Amherst, under the general inspiration of the agricultural college at that place. At the Mt. Hermon School, at Mt. Hermon (founded by the late Dwight L. Moody), there is a thoroly equipped department of agriculture of a secondary school grade. The pupils are mostly from the country. The equipment is as good as in many of the agricultural colleges and excellent work is done.

NEW YORK

A number of cities and larger towns are taking up the school gardening with energy and efficiency. The Oswego Normal School is also conducting school-garden work. There are no high schools or academies in the state, so far as I know, that are now carrying agricultural work, but a great many of the high schools are carrying manual-training work of one kind or another, and nature-study work is well spread. The Belleville Academy, in Jefferson County, has an endowed department of agriculture, but the endowment is so small that it has been impossible to secure a teacher. For three or four years scientific work has been handled with special reference to agriculture and there have been two or three classes in agriculture itself. Many schools are making local applications of their customary work.

How far it is possible to introduce nature-study and similar work into the one-teacher district schools is expressed in the following quotation from Miss Marguerite Cook, one of the Cornell nature-study pupils who is now teaching in such a district.

Nature-study has done this in my teaching: (1) established discipline; (2) led to quiet habits of investigation; (3) been a common point of interest with pupils and teachers; (4) an unfailing source of pleasure and comfort to both rich and poor children. I have never found it necessary to "get the children interested" in gardening and plant-growing. They are interested, and after the manifestation of a little sincere interest on the part of the "grown ups," they prove it in lively and practical ways. The districts in which I have taught have not been favorable to agriculture, so I cannot speak with assurance on that. I believe the rural schools need more thoro work in reading and writing; more books to read; more practical work in arithmetic (the keeping of accounts and common business transactions). History and geography should be related more closely to their own environment at first. The girls should have practice in sewing, and the boys in "making things" (manual training). I have found correlation successful only when natural.

The idea of exhibitions has taken firm hold in some parts of the state. The following account of a high-school "show" indicates the character of some of these enterprises. It is from Mr. Frank E. Henn, the teacher at Walworth.

There were over three hundred exhibits, all very fine. There was a fine line of rabbits, bantams, hens, guinea fowls, doves, and cats. These were in the entry of the school building. Within the schoolroom we had placed long boards upon the desks, transforming them into long tables. These were covered with papers. The exhibits were unusually fine and varied. Two sets of judges did the prizing, the prizes ranging from five to ten cents. The fair was held both afternoon and evening, but owing to the stormy weather, numbers were deterred from coming. As it was we had all we could easily handle. The admission was ten cents. The receipts were ten dollars. After deducting expenses, we have seven dollars and seventy-five cents left which will go toward our library. This fair was much talked of by the people, being something unusual. Everyone was surprised at the fine showing made. I find this work a great help in school. They feel that Uncle John is a friend. Pride is taken in bringing natural products to the schoolroom for study and for school decoration. Last spring we tried raising cotton but were unsuccessful. However in the effort valuable lessons were learned.

Some of the local fairs are much interested in the work of the children and particularly in the things that they grow in their gardens. The most marked example of this is in Steuben County, in the southwestern part of the state.

The reason for this lies in the fact that Mr. H. L. Drummer, gardener of the Soldiers' Home, at Bath, has organized the public schools in the interest of nature-study and gardening. The general movement is now known as the Steuben Nature-Study Workers of the Public Schools. This work is conducted under the auspices of the county agricultural society, which also holds the fair. The children's exhibit and children's day have become one of the features of this fair, which is becoming known afar and wide for this kind of work. The following is a statement from Mr. Drummer of the work:

Although the club of the Steuben Nature-Study Workers had a very modest beginning, yet it has a history, and the seed sown in 1900 sprang up, grew lustily, brought forth blossoms and fruit and promises to become a landmark in nature-study work. Six years ago the florist of the New York State Soldiers' and Sailors' Home and the promoter and manager of the club, Mr. H. L. Drummer, tried to interest some of the young folks of his acquaintance to sow some flower and garden seeds, which he gave them, in a nook of their garden and watch the process of growing plants. When the youngsters asked him for a flower, he gave them a cutting from the plant desired and told them to take care of it and to grow flowers for themselves. It was something new for the children and the boys and girls enjoyed the gardens of their own planting. This was done in the spring of 1900. During the summer months he interested the business men of Bath, N. Y., in his work and he was in his appeal for prizes so successful, that $150 partly in valuable presents, partly in money, were contributed. A premium list, with a greeting to parents and children and some rules for the government of the children in their competition for prizes, was prepared and distributed. When the time for the Steuben County Fair was approaching, the children were told that they should have an exhibition all by themselves and that their efforts in growing flowers and vegetables and in making collections of woods, minerals, bugs, and butterflies would be judged by competent and impartial judges.

For childrens' day at the Steuben County Fair, September 26, 1900, the school children of Bath, N. Y., had made 127 entries and their exhibits were neatly arranged in the main building, in a space allotted for the exhibition thru the courtesy of the Steuben County Agricultural Society, which three years later paid all premiums in money for the prize-winners. Forty-six prizes were awarded the first year, having a value of $89.50. The judges were Professors M. V. Slingerland and C. E. Hunn of Cornell University, Ithaca, N. Y. Professor L. H. Bailey encouraged the children and their parents in an address that made a deep and lasting impression upon his hearers. Judges and speakers unanimously commended the good work done by the manager of the exhibition and gave unstinted praise to the fine and carefully grown objects on exhibition.

July 17, 1901, the first picnic and field day was arranged for the children in the grounds of the N. Y. State Soldiers and Sailors' Home. W. H. Jordan, director of the New York Science Experiment Station, Geneva, N. Y., addressed a meeting of about 3,000 people on the "Value of Modern Education," while Dean I. P. Roberts, of Cornell University, spoke on the "Preparation and Qualification of the Children for Life's Duty." The field day was a great success, and since then every midsummer the people gather from near and far to this annual outing in the ground of the Home.

Although well pleased with this first attempt, it was evident to the manager that the whole undertaking was yet in its experimental stage and that only study and experience could advance the club to a healthy and stable existence; and when the second exhibition was held, September 25, 1901, he had learned a good lesson, so that this second exhibition proved still more successful than the first. Still Mr. Drummer was not yet satisfied. He was persuaded that the educational movement in nature-study should be the cardinal point toward which everything pertaining to such a study must be directed, in other words, that he must have the co-operation of the teachers. These teachers, who until now had been only

passive admirers of the children's progress in gardening, became more interested and thru the unceasing efforts of Mr. Drummer began to work in harmony with his plans. That the training of the senses for quick and accurate observation must be of the greatest importance and that the reasoning faculties must likewise be educated simultaneously in proportion with the age of the pupil, was clear enough to the teacher. A new departure in nature-study was therefore reached, when a separate catalogue was issued in 1903 for gradework in the public schools. In this gradework a great progress has been made and the teachers deserve all praise for the interest which they now manifest in nature-study work. The teacher of drawing in Haverling High School, Bath, was the first to present objects from life, a plant with roots, foliage, and flowers to her pupils for drawing, discarding the conventional copies, and she had the satisfaction to notice that the children received not only a lesson in drawing but also one in botany. Other teachers of the same school encouraged the pupils to infuse their dry essays with new life, and since then, topics treating the phenomena in nature, which require study and close observation, are furnished in abundance. In the rural districts, with few exceptions, less interest is shown by the teachers in nature-study, and this must be attributed chiefly to the methods of engaging teachers not by the year, but by the term. Cohocton, Hammondsport, Rheims, and a few neighboring country schools make a noteworthy exception; but the summer teacher, hired for a few months only, lets the grass and weeds grow in the school yard and then departs in June, while the succeeding teacher has generally no heart to prepare for an exhibition as late as August.

The influence which the nature-study workers have on a better cultivation of private gardens in the villages and on the farms is very pleasing and noticeable. Lawns and yards are better kept, flower beds are laid out and cared for, and farmers that formerly thought the garden plat a nuisance and loss of ground, became interested in the work of their children and are very proud of the success these have in being awarded a prize.

In summing up, it will be found that the club of Steuben Nature-Study Workers has accomplished a good many things during the six years of its existence and that it has done meritorious work in every department. The floral exhibition was always admired by the visitors to the fair, while the agricultural department opened the eyes of the farmer when he saw the many varieties of potatoes, the fine corn, and large rutabagas. Worthy of mention among many others, was the exhibition of 149 varieties of potatoes grown by Master Earl Daniels, of Bath, aged seventeen years. At the universal Exposition at St. Louis, 1904, the international jury of award has conferred the Gold Medal upon the Steuben Nature-Study Workers for exhibit of vegetables.

The following is a recapitulation of the annual exhibitions:

Exhibition September 26, 1900,	127 entries	$ 89.50 prizes
Exhibition September 25, 1901,	405 entries	272.00 prizes
Exhibition September 24, 1902,	1,200 entries	196.50 prizes
Exhibition September 30, 1903,	2,095 entries	239.25 prizes
Exhibition September 28, 1904,	2,989 entries	537.40 prizes
Exhibition September 26, 1905,	3,200 entries	547.45 prizes

Of the entries in 1905 were 1,300 plates of potatoes of 186 varieties.

Mr. H. H. Lyon, teacher in a real rural school in Chenango County, New York, has been successful in interesting his pupils in various experiments and tests that have relation to farming. He gives all the pupils including the younger ones, nature-study work. Suggestions are had from books, from the New York State syllabus, and perhaps quite as frequently from something that happens for the time to be interesting the school or the community. He is introducing practical local problems into the arithmetic work. He suggests that if ten or twenty-five schools could work together in harmony in arithmetic,

geography, and other subjects, thereby making it worth while for examination questions to be asked on these new lines of work, the results would be very marked. Some of the problems that have been more or less used by Mr. Lyon are as follows:

Air—

Test for moisture.
Test for carbonic acid gas (lime-water, etc.).
Tests for ammonia (in schoolroom and in cow stables).

Seeds—

Germination (find per cent., etc.).
Manner of growth (monocotyledons, dicotyledons).

Plants—

Water taken from soil (use scales).
Transpiration (collect H_2O).
Examination for nodules on leguminous plants; effect of nodules on luxuriance of growth.

Soils—

Search for water-table—different places and times.
Test with litmus paper.
Effect of lime or ashes on clay soil.
Effect of lime on clear and muddy water.
Correct acidity with lime or ashes (result observed in growth of clover).
Capillarity under different conditions.

Milk—

Babcock test:
Drill in making measurements, reading bottles, computations.
Test acid with acidometer.
Acid test:
Correct measurements, computation of acid.
Milk at different ages:
Under different conditions of cleanliness and temperature.
Bottle and cork tight; keep warm; observe odor; use different samples to compare.

Water—

Test for organic matter:
Bottle with a little sugar; keep warm. Observe color, etc.
Use potassium permanganate.

Osmosis—

Using egg.
Using bladder.

Fungicides—

Formaldehyde for oats smut.
Hot water for oats smut.
Bordeaux for potato blight (use ferrocyanide test).
Computations in each case.

Chemical action—

Caustic soda solution plus muriatic acid. Evaporate salt (teach chemical formula of this even at ten or twelve years).

Commercial fertilizers—

Handling and mixing. Nitrate of soda, muriate of potash, and dissolved rock (computations).

Cows—

Dairy type (examine form, milk veins, hide, etc.).

Beef type.

Weather Map—

Determine location of storm center.

Physical Experiments—

Taken from books on physics. Make suction pump with lamp chimney, etc.

THE PREPARATION OF TEACHERS FOR INDUSTRIAL SCHOOLS IN RURAL COMMUNITIES

As a preliminary to the consideration of the specific preparation of teachers needed for industrial phases of education in rural communities, it may be well to take a brief survey of the conditions in these communities from an educational standpoint, in so far as they may indicate the lines of least resistance in the development of industrial education.

At the present time schools in the country are in the main taught by a single teacher who has to instruct pupils in all stages of advancement from the beginning thru the elementary course, covering a period of eight years. The salaries of teachers are low; the educational and professional qualifications demanded are on the same scale as the salaries paid; the teacher's entire term of service is short, and shorter still in a single school in most cases; the length of the school year is less than in most of the cities and villages of the country; the attendance is irregular; many of the schools are too small to develop any interest or spirit of emulation on the part of the pupils; the equipment for instructional purposes is totally inadequate in most cases; and in most states these schools have practically no effective supervision. Few advanced pupils are found in these schools, most of them withdrawing at or before the age of fourteen. It is recognized that in this last respect the conditions vary in different portions of the country, but the foregoing statement is true of the great majority of the country schools.

There are reasons why such conditions obtain. Among these reasons may be mentioned the sparsely settled condition of many localities; the distance many of the pupils have to travel to attend the school; and the facility with which the children may be employed in various ways upon the farm to assist in the farmwork. But there are other matters more potent than any of these causes. Among these, perhaps the most important is the lack of appreciation, on the part of the parents of the children, of the value of an education, of what is necessary in the way of expenditure to provide educational facilities, and of what is necessary in the matter of time which pupils must be in school in order to secure even an elementary education. Too often the desire for the child's assistance on the farm or in the home is greater than the desire to give him or her a chance to secure an education. In many cases parents fail to see wherein the work of the schools is of benefit to the pupils from what they consider a practical standpoint, and therefore make no effort to keep them in school.

Here and there in rural communities may be found individuals who believe that the schools should furnish something other than they are furnishing in the way of practical education. In few cases has their thinking in this field progressed beyond the point where they have become dissatisfied with existing conditions. In a vague way they feel that something is lacking which ought to be provided; they have not determined what it shall be nor have they taken into consideration the fact that provision for something better means the expenditure of more money, and with greater wisdom than has thus far been shown, and the material lengthening of the time the pupil shall remain in school. It means provision also for far more efficient supervision than exists at the present time, and this means a further increase in expenditure. In other words, betterment of conditions in rural schools means higher standards on the part of the patrons of these schools and the expenditure of much more money in the education of their children than they are now paying.

In a number of states the consolidation of rural schools into graded schools, centrally located with reference to the consolidated districts, has been begun. In few of these schools has anything yet been attempted in the way of industrial education. In many localities the consolidation of the rural schools is not feasible because of the geographical conditions and difficulties in the way of transportation of pupils. Perhaps the greatest difficulty in the way of consolidation lies in the fact that it may mean an increase in the amount of school taxes. In almost any community, when consolidation is proposed, the first question which arises is, Will it increase taxes? If an affirmative answer is given to this question, in nine cases out of ten the discussion is closed and we are driven back again to the necessity of educating public sentiment in the community to a point where people are willing to put more money into the schools.

The proposition to provide means for industrial education in rural communities carries with it the necessity for a campaign of education among the people in these communities. They must be led to see the changes that are going on in this country in production areas for different classes of agricultural products; the necessity for the introduction of scientific farming because of the steady lessening of the native fertility of the soil due to unscientific methods of cultivation; the necessity for introducing more scientific methods of breeding, feeding, and caring for the live-stock upon the farm; and the advantages to be derived from the application of scientific and economic principles in conducting the affairs of the household. They must have put before them clearly the fact that, without an industrial education, their children on the farms do not have a fair chance in life, that these conditions will grow worse instead of better, and that more and more the young people will leave the farm and flock to the city. They must be convinced that the use of more money than they are at present expending for the instruction of their children is a good financial investment, and that if applied to the furnishing of proper facilities for industrial education, followed by the utilization of these facil-

ities by their children, the investment is the best possible one they can make.

The development of industrial education in rural communities will undoubtedly demand, and very properly demand, direct state aid; but self help is an essential condition for progress. State aid may provide schools; but there must be a sentiment on the part of the people which will arouse them to do something more for themselves and for their children than they are now doing, and which above all things else shall result in their keeping their children in school during a longer period of time.

In the first report made by this committee in 1905, there were set forth in some detail the character and scope of industrial education suited to the needs of rural communities, and the work which might very properly be attempted in the field of agriculture, manual training, and domestic arts and sciences was outlined.

The phases of industrial education outlined in that report have been demonstrated to be entirely feasible and valuable, both in regard to the scope and character indicated. Since that report was presented there has been an awakening and development of educational activity on industrial lines in many of the states. This activity has manifested itself in different forms of effort and has been applied at different points in the educational systems of the different states. A number of states have made instruction in the elements of agriculture mandatory in all the rural schools. Others have encouraged the introduction of such work in this class of schools by requiring teachers to make preparation for teaching the subject by making it one of the subjects of required examination for a certificate. In several states, industrial schools in which agriculture, some phases of the mechanic arts and domestic economy are taught have been established, and at the present time bills are pending before the legislatures in a number of states or have already become laws providing for the establishment of other schools of this class.

The history of these schools, wherever established, up to the present time, shows a steady increase in attendance and a marked advancement in public opinion thruout the rural communities as well as in urban communities as to their value. In practically every case where such schools have been established it has been under the authorization of state law, and state aid has been offered as an inducement for communities to take the initiative and bear a portion of the expense in the establishing and maintaining of such schools.

In a number of states, some township high schools, village high schools, and city high schools have introduced a short course of instruction in the elements of agriculture; but up to date this instruction has been almost entirely theoretical and textbook work. Wherever such work has been attempted in the consolidated schools it has been largely of the same character, and the same statement may be made with relation to its introduction in the rural schools.

This brief survey of the field indicates the points in the systems where

effort is now being expended for the development of industrial phases of education in rural communities.

While the committee believes that effort in each of these directions should be encouraged, stimulated, and wisely directed, it is of the opinion that the work should be pushed most vigorously along those lines which promise the greatest returns in the way of results, and that these results are to be considered from their immediate and prospective value to the pupils in the schools and also from their value in educating the public to an understanding and an appreciation of industrial education.

The history of agricultural education in this country shows that the line of least resistance and greatest progress has been downward from the agricultural college rather than upward from the rural school. The agricultural colleges thru their work in investigation and experiment and thru their organization and administration of courses of instruction, have developed a more or less extensive body of knowledge of practical value and available for purposes of instruction in schools of lower grades. They have discovered that comparatively few graduates from the agricultural college go back to the farm, but that their services are needed in lines of experimental work and investigation.

The next step in extending the results of their researches, was the organization of short courses which are now administered in connection with some of the agricultural colleges and which are open to boys who have completed the common school course. The formal establishment of a secondary school of agriculture with definite courses of instruction in connection with the agricultural college in Minnesota, the first experiment of this kind in the United States, has demonstrated the possibility of extending this work downward as entirely practicable. The young men and women who have completed the work in this school have gone back to the farms and carried with them and put into practice the knowledge and skill acquired in the school. They have become centers of influence in the communities in which they have continued their work, and wherever found, their influence is potent in the direction of a further extension of facilities similar to those they have enjoyed.

The graduates of the short course in agriculture in the Wisconsin Agricultural College, more than one thousand in number, have organized an association for carrying on experimental work under the direction and stimulation of the college authorities, and wherever they are found they are awakening an interest in their communities in the direction of increasing the facilities for industrial education for the country boys and girls. The establishment of county schools of agriculture and domestic economy in Wisconsin in 1900, followed by the establishment of similar schools in other states since then, and of the establishment of schools having the same purposes but making the congressional districts instead of the county the unit of organization, as in Alabama, Georgia, and Minnesota, has demonstrated the growth of public opinion as to the value and feasibility of industrial education.

The establishment of these secondary schools has aided materially in the better organization and adaptation of material for instruction in secondary schools and is rapidly organizing it in form to be available in the elementary schools. In this field much yet remains to be done. It must be done, however, by those who know the field and who are actively engaged in instructional work. Until very recently this work in the elementary and secondary fields of instruction has been so limited and so little in demand that little or no provision has been made for the systematic training of teachers for it. Such a demand has suddenly sprung into existence. Teachers adequately trained for this work are not obtainable. Provision must be made for meeting this demand.

Four classes of schools have been mentioned, in three of which a place is being demanded for some phases of industrial education. These three are the rural school with one or two teachers, the consolidated rural school with four or more teachers, and the existing high schools in villages and in the smaller cities. The fourth class of schools is distinctively industrial, in which academic work of the ordinary kind is rather an incident than the main feature, while the exact reverse is true in each of the other classes of schools.

It apparently needs but a statement of the conditions which obtain in the district schools or schools with less than three or four teachers, coupled with an understanding of the scope and character of those phases of industrial education which seem desirable for the country boy and girl, to convince anyone that it is an impossibility to so modify the course of instruction in this class of schools as to adequately meet the demands. With properly trained teachers, some very elementary industrial work can be undertaken beyond the nature-study work which may be profitable, but which, however valuable it may be as a preparation for distinctively industrial education, is not industrial.

The committee believes that something may be done in these schools, in what is known as the elements of agriculture and that the most valuable work in that field, is that which informs pupils of methods, processes, and results which have been proved most satisfactory in farmwork; such methods, such processes, and such results as are within their comprehension and adapted to local conditions; and results such as can be secured in the community where the school is located. It is not the purpose of the committee to claim that such a mode of procedure is strictly pedagogical or scientific, but that it is justifiable because it will appeal to the parents of the children as practical and having a commercial value because of its availability for use in their community. Every development of such appreciation of schoolwork is a positive gain in an educational way. It will awaken an interest in and a demand for more extended work and for the organization of schools in which it can be given, and in time will result in extending the period of school life of the country children.

Some elementary and practical work in domestic economy may be given the girls with similar results. To successfully conduct the work either in the elements of agriculture or in domestic economy, the teachers must have special

preparation. The committee does not believe that adequate preparation can be secured generally, except in professional schools maintained for the training of teachers. The state normal schools which train teachers for the country schools are already undertaking this work. It must still be further extended and made not less scientific, but more practical, in that the course of study in this subject shall undertake to make the prospective teacher well informed concerning practical methods and processes based upon scientific principles and adapted to the agricultural needs of the community.

A knowledge of the processes of plant growth and reproduction is important, but it is still more important that the teachers shall know and be able to instruct pupils in practical modes of modifying or developing conditions out of which shall come the best possible results in variety and yield of production.

The question of the proper preparation of the country-school teacher for this industrial work is a part of the larger question of the proper preparation of the country-school teacher for all lines of work in those schools. The committee believes that it is not reasonable to expect the state normal schools whose courses of instruction are sufficiently extended to give the proper training for graded-school teachers in the cities, to furnish an adequate supply of teachers with proper training for the country schools, and especially so when the cities are paying and are likely to continue to pay much higher salaries than the country. For this work of preparing the country-school teacher, a distinct class of training-schools must be organized whose sole function shall be the preparation of this class of teachers. These training-schools must devote themselves to preparing the teachers to teach in the country school. The training will not be broad from the academic standpoint, but it must be intensive and professional in the field covered. Such schools should give the necessary instruction for such phases of industrial education as are adapted to the capacity of children in the rural schools. The teachers in this class of training-schools should be persons of education and refinement, with a knowledge of conditions in the country schools; experience in teaching in such schools; skilled in the application of pedagogic principles in their teaching-processes, and able to so instruct their students as to make them acquainted with fundamental pedagogical principles and capable of applying them in their subsequent work as teachers.

As many of the country-school teachers receive their education in the ordinary high school, it will be argued that instruction in the elementary phases of industrial education must be given in the high schools. The high schools are not professional schools; they are not organized for the training of teachers; they are organized to do academic work secondary in scope. They do not put the emphasis on instruction in subjects taught in the rural schools, and while the students are benefited by a course of instruction in the high school they are not therein properly fitted for teaching any grade of school. After graduating from the high school they must in most cases, study anew the subjects they teach, and *as* they teach them in the rural schools, and they must learn

to teach by experimenting on the pupils in these schools. The attempt to organize a class in the high school for the training of rural-school teachers has been made in a number of states, and while such an attempt has not been a total failure in every case, it is doubtful if it has been largely successful in any case.

Institutes and summer schools may be organized for the distinct purpose of preparing teachers for the industrial phases of educational work. Such agencies are valuable and accomplish something and should still be employed, but they are not continued long enough to give the preparation necessary for the most successful results. It is believed, therefore, that the agitation for the introduction of industrial work in the rural schools should be accompanied by an effort to secure the establishment of training-schools for the distinct purpose of preparing rural-school teachers for their field of work. They would in no sense be in competition with the state normal schools of higher grade, but would furnish facilities for training a class of teachers not now trained in sufficient numbers by the state normal schools, and would give many a young person an impetus for further training which, after some years of teaching, would be continued in the state normal schools.

In the second class of schools, the consolidated rural school of four departments offering one or more years' work beyond the elementary course, more work of an industrial nature should be introduced into the course of study, because of the greater maturity of pupils and a consequent ability to comprehend and appreciate more advanced instruction.

As in most cases buildings would have to be erected to meet the needs of the consolidated school, provision could be made when the building is planned, for rooms in which work in manual training and domestic art and science could be carried on, and for a small tract of land for experimental purposes. Where four or more teachers are employed in these schools, one should be selected with reference to his ability to instruct in manual training and in the elements of agriculture, and one with reference to her ability to give instruction in domestic art and science. These teachers would need more extended instruction than is required by the teachers in the single-department rural school. The teachers in these schools should have at least the training given in a good state normal school where adequate provision is made for giving instruction in the industrial subjects mentioned. If teachers with sufficient academic training other than in the industrial field are employed for work in the consolidated schools, those needed for the industrial phases of work should be required to make preparation for such work in schools organized specially for giving such instruction. Where consolidated schools have already been organized purely on academic lines, at least two of the teachers should be selected with reference to their ability to introduce the industrial work. Summer courses in domestic-science training-schools or in connection with the schools of agriculture could be taken, which would prepare them to make a beginning and could be continued as the work developed.

In the third class of schools, the academic high school, where instruction

in agriculture and domestic art and science and manual training are given, teachers should be selected who have had special training for this work. Normal schools making a specialty of training teachers of industrial subjects should furnish the proper instruction. The agricultural colleges should offer summer courses which would fit the teachers in these high schools for the work in agriculture. If the teachers in such high schools have not had professional training or considerable experience before taking up this work, they should have the opportunity to secure professional training in connection with the technical work which they may do in the summer schools or elsewhere. It must be borne in mind that a different phase of industrial education is needed for the country boy and girl than for the city boy and girl, and that teachers must adapt their work to the environment of the pupils and that their training should be with reference to these facts.

In the schools of the fourth class, those which are distinctively industrial in character and of secondary grade, a still more extended course of preparation is necessary for efficient work on the part of the teachers. The men who are to organize the work of such schools or give instruction in agriculture and the mechanic arts, should have the training afforded by an agricultural college course, and this course should be something more than a specialized line of work. The man who is to give instruction in agriculture, if the school is small, should be a specialist in some line of agricultural work and should know a great deal of many lines. His training in a special line of work will enable him to prepare himself to give the necessary instruction in any line needed, even tho he may not be fully prepared at the beginning. His knowledge must be so broad and accurate with reference to agricultural conditions of the locality where the school is situated, that it will command the respect and confidence of the students and of the farming population. He must be able to give wise counsel to the farmers of the community in which the school is located with reference to methods and processes applicable to local conditions. He must be able to present in a simple and attractive way the scientific facts and principles underlying agricultural processes, before bodies of farmers which he may have occasion to address. He must know how to win the respect and confidence of the farming population and have a genius for organizing, not only in school affairs but in the larger field of agricultural interests outside the school.

There is not an institution in the United States today seriously undertaking to prepare this class of teachers. The agricultural colleges should take note of the demand for such a class of teachers and should make immediate preparation to meet the demand by organizing special courses for the training of teachers. Something more is needed than is at present offered in the agricultural colleges of the country. It is not enough to say to those wishing to prepare themselves for this work: "Our courses are open to you, you can get whatever you want." They cannot get it under proper conditions, nor without using an undue amount of time. There is sufficient demand today for such a

body of teachers to warrant a number of the best agricultural colleges in the country in establishing definite courses epecially designed to train teachers for this class of schools. Such courses must not only offer instruction of a scientific and technical nature, but they must offer professional courses which deal with the subjects from an educational standpoint. They must recognize that it is a fiction to assume that because a person knows a subject he can therefore teach it; they must recognize that teaching is an art and that it is based upon certain scientific principles; that these principles can be mastered and that their application in the art of teaching can be made clear, even tho practice in applying them cannot be given to the extent which is necessary for the acquisition of the highest skill. Departments of education in universities having agricultural colleges in connection with them may offer the courses in educational principles needed for such training, but it would be far better if the agricultural college itself could offer such courses in direct connection with the scientific and technical work.

The teachers of domestic art and science in these schools should be prepared in schools which give a thoro training in both the technical and professional sides of the work. As these industrial schools are designed to meet the needs of rural communities, so the instruction in domestic art and science must be adapted to the requirements of people in rural communities living under the conditions which obtain there rather than in the city. The preparation of teachers for this work must be to meet these needs. The economic, social, and industrial conditions of life upon the farm must be taken into consideration in planning the courses of instruction provided for such teachers.

In the matter of the preparation of teachers of industrial subjects in schools for rural communities, the greatest need today is for properly trained teachers for these secondary schools. It is in these schools that the largest results can be soonest secured—results which will attract the attention of the rural population and crystallize sentiment in favor of industrial education to a greater extent than is possible thru the work of any or all the other classes of schools under discussion. The work in them thru experience and experiment will result in the better organization in pedagogic form of the body of knowledge of industrial subjects available for instructional purposes. It will demonstrate what can be undertaken with profit in the other classes of schools and will extend their influence down into the elementary schools and thruout the community in a way to command the largest possible support for and the best possible organization of industrial education thruout all classes of schools in rural communities.

DEPARTMENT OF KINDERGARTEN EDUCATION

SECRETARY'S MINUTES

FIRST SESSION—Tuesday Afternoon, July 9, 1907

The Kindergarten Department met in the Immanuel Presbyterian Church. In the absence of the president, Miss Mary C. May, of Salt Lake City, Utah, the vice-president, Elmer E. Brown, of Washington, D. C., presided until Mrs. Holden, of Redlands, Cal., was appointed.

The first address was given by Miss Grace Everett Barnard, of the Kindergarten Training School, of Oakland, Cal., the subject being, "The American Ideal in the Kindergarten."

This was followed by Dr. Margaret E. Schallenberger, principal of Training Department, State Normal School, San Jose, Cal., whose topic was "Motive for Work." Discussions followed these papers.

Committees were appointed as follows:

COMMITTEE ON NOMINATIONS

Miss Anna M. Stovall, San Francisco, Cal. Miss Grace Wood, Trenton, N. J.
Miss Rosalie Pollock, Salt Lake City, Utah.

COMMITTEE ON RESOLUTIONS

Mrs. Nora H. Millspaugh, Los Angeles, Cal. Miss Barbara Greenwood, Pomona, Cal.
Miss Lucy Ellis, Phoenix, Ariz. Miss Adelaide Randolph, Kansas City, Mo.
Miss Grace Rowell, Pasadena, Cal.

Adjournment.

SECOND SESSION—Thursday Morning, July 11

The department met in Immanuel Presbyterian Church; Mrs. Holden, the acting president, presiding.

"Home and School Life in Germany" was the subject of the paper given by Miss Amalie Nix, president of the German Pedagogical Society of Minnesota. After the reading of the paper, many questions were answered by Miss Nix.

The Committee on Nominations reported the following names:

For *President*—Miss Bertha Payne, Chicago, Ill.
For *Vice-President*—Miss Barbara Greenwood, Pomona, Cal.
For *Secretary*—Miss Harriet D. Rockwell, Cleveland, O.

This report was accepted and, on motion, the secretary was ordered to cast the ballot for the election of the nominees. The ballot was so cast and the nominees were declared elected for the ensuing year.

The Committee on Resolutions submitted the following report:

Resolved, That it is the sense of the Kindergarten Department of the National Educational Association that we, as kindergartners, deeply interested in child life, use our influence in such a manner that mothers will demand a higher standard of culture in the nurses or maids intrusted with the home care of children.

Resolved, That a committee of five be appointed to confer with the officers of the International Kindergarten Union for the purpose of bringing about a closer affiliation between the two bodies.

Resolved, That we extend our thanks to the officers of the Ebell Club for the generous offer of their club house for the reception given to visiting kindergartners and educators.

Resolved, That we thank the members of the From Time to Time Club and all others who have made our stay in Los Angeles a pleasant one.

Resolved, That we appreciate the careful way in which the press of Los Angeles has reported our proceedings.

Resolved, That these resolutions be placed upon the minutes of the meeting of this department.

The Department then adjourned.

MINNIE C. WOOD, *Secretary*.

PAPERS AND DISCUSSIONS

THE AMERICAN IDEAL IN THE KINDERGARTEN

GRACE EVERETT BARNARD, KINDERGARTEN TRAINING SCHOOL, OAKLAND, CAL.

Whatever the motive for announcing this subject for discussion in our department, its timeliness appeals to us on this coast, who feel the humiliation of recent revelations in civic life. In the past, we heard much of the kindergarten as a school of citizenship, and in early days it was a proud boast that not a child of the free kindergartens had been in the police court. There has not yet been time for a kindergarten-trained city government to demonstrate its efficiency, but some of us seriously question whether our claims will be realized.

To assert one's conviction that national problems reach down even to the nursery, is but a revival of Froebel's claim that "the destiny of nations lies far more in the hands of mothers than with the possessors of power."

The weighty problems of immigration, industrial warfare, predatory wealth, with which our legislators are wrestling, have their counterpart in our kindergarten realm. The foreign mother, who encourages her offspring to add to the family resources without regard to property rights, the wage-earning mother who is forced to leave her group with immature brother or sister, the society devotee who, between week-end trips and nervous breakdowns, cannot be disturbed by the clamoring interests of her embryo citizens, all force upon the kindergartner grave responsibilities.

The White House, the university, the pulpit and the press unite in the verdict that only as we develop character that is morally incorruptable, may we attain civic and national righteousness. So we who guard these first years must be grounded in those fundamental principles of character-building which can secure moral rectitude, if the American ideal is to be preserved.

America is in danger of becoming a huge orphans' home. The rush of business life taking the father away before the children are up for the day, and keeping him absorbed until after they retire for the night, makes them practically fatherless. The equally strenuous social life of the mother deprives them of the very factor which has produced our typical Americans. In the endeavor to give their children position in commercial and social world, parents rob them of their most precious heritage.

The crowded life in hotels, apartments, and boarding-houses insures a setting of standards by nursery maids and street urchins. The abdication of

parental responsibility seems to be in progress, and church and school are held responsible for what can only be accomplished in the intimacy of companionship of parent and child in the privacy of the home.

Another source of danger to our free institutions lies in the growing number of dependent children. The secretary of the State Board of Examiners of this state reports that in the United States there is one dependent child to each one hundred who are supported by parents or guardians.

It is unreasonable to expect inspiring personalities in such places under present conditions, and yet we all feel that the secret of character is the contagion of a noble life.

The first mission of the kindergarten seems to have been to the school. Educators point to its influence from the receiving class to the elective courses and laboratory methods at college. Its second mission is to the home. It has begun where Froebel began his work, in the call to parents: "Come, let us live with our children, that all the world may be better thereby."

Shocking as are the discoveries of corruption in high places, the indifference to bribery and deceit in home and school is worse. The commonness of cheating not only in examinations, but in excuses and truancy is appalling—ugly facts to which we must not shut our eyes. This is undermining the moral fiber. Even we members in good standing of the National Educational Association, could we plead "not guilty" if indicted by a grand jury investigating incipient corruption in home and school?

The kindergarten training-school has done earnest work in preparing teachers, but more lasting work in training for motherhood. A scientific knowledge of children, far from destroying tender affection, rouses new sympathy and a keener interest, and emphasizes the sacredness of woman's noblest calling. The student learns that knowledge of child nature and needs rests upon a more reliable foundation than memory of her own childhood, and fortunate as was her own home experience, there is a lack in health and ability which might have been avoided, had modern attention to such matters prevailed a generation ago.

Every well-regulated public kindergarten conducts mothers' meetings, and training-schools announce mothers' classes. The practical results of these are so rewarding that I urge any one who has not had courage to undertake this work to attempt it without delay. My last experience was with a group of representative young society matrons, and no training-class was ever more responsive. Such enthusiastic visitors to the respective kindergartens to assure themselves that the kindergartners were up to the standard! Bookstore and library testified to their response to suggestions for reading. One mother offered to pay the fee of ten dollars a month to secure a Sunday morning kindergarten for the sake of her small son.

In a former class the practical effect was shown by dismissing an expert cook to afford the luxury of a graduate kindergartner for the nursery. This same earnest member established the class, declaring that the mother in the

slums was provided for, but there was no possible way for the cultured mother to prepare herself for more enlightened motherhood.

If you will pardon one other personal experience—with great hesitation the suggestion was made that a mothers' class be conducted as a new feature in Sunday-school work. A dozen responded to the invitation and with gratifying regularity attended the three-months' course. These are hopeful indications and show us that we are not fulfiling our whole duty if confining our work to the professional kindergartner.

But what do we offer? Not a "program" or "book of work," suggestive as both may be. Not even the mother-play to begin with, but first a résumé of the results of child-study, with special reference to the significance of physical health on moral and mental development.

Then comes sympathetic discussion of the problems of discipline in home and kindergarten, with emphasis upon the power of suggestion, an exposition of Froebel's helpful searching truths on the side of religious training. After introducing the class to the underlying principles of the kindergarten, we take up the kindergarten tools, the gifts, occupations, songs and games, stories and talks, making clear that there is no magic in the materials, but that all depends upon the intelligence with which they are used.

We try to give them a standard by which to judge whether the kindergarten is a healthful garden where right soil and wholesome atmosphere are producing natural growth, or where a forcing process is hastening precocious development, which is destined to wither in the bracing air of every-day existence.

It is easy to warn against the danger of arrested development by overdrill on the one hand, or abuse of creativeness by overstimulation on the other, but to point the narrow way of insight into rational methods by which the goal is reached is a difficult task.

If the training-school is earnestly trying to help the home, it has not forgotten that its main function is sending out kindergartners who by the contagion of forceful, persuasive character, and with insight into mental processes, are able to incite the will, arouse the emotions, and stimulate the intellect of the least-promising children. The same general plan is followed as outlined for mothers, only on broader lines. The day has passed when loyalty to Froebel excludes light from other sources. G. Stanley Hall, J. Mark Baldwin, Professor James, Dr. Le Cont, and Dr. Harris are as familiar as *Education of Man* and "mother play." Less time is given to elaborate handwork, and more to its bearing on the character. The novice does not begin to practice upon the children until after a period of observation and study. Her task is a double one—to know herself, and to understand children. To discover that what she *is* determines her possibility of influence is startling.

If the kindergarten is to justify the high claims of its friends we need not only the contributions of modern science and philosophy, but a truer inter-

pretation of Froebel. When our enthusiasm is equaled by our insight, we may be worthy to follow in his footsteps and attempt

> to educate human beings who stand with their feet rooted in God's earth, in nature, whose heads reach even into heaven, and there behold truth, in whose hearts are united the varied life of earth and heaven.

The strongest argument for the kindergarten is its unparalleled opportunity for practicing the social virtues. Altho a German importation, it thrives best in our democratic soil. Froebel called it "the free republic of childhood," and strove to prepare for political liberty by securing self-control in the child. Obedience will be the first step, but teacher and pupil will be mutually subject to the same law. We help the child to rise from the self-centered individual of the nursery, thru the social life of the kindergarten to a truer selfhood, which becomes self-forgetfulness in the service of others. In the intimacy of home and kindergarten he must find his happiness thru yielding his will to a wiser will, and thru moral, not physical, compulsion, recognize the right. We want reverence for law, but not slavish subjection to an individual. The aim of kindergarten discipline is self-direction, but its punishments are sure. Caprice must rule at no stage, Froebel insists, and we believe in establishing from the first, that the consequences of wrong doing should be visited upon the offender. He must early learn to be responsible for his own acts.

The handwork helps to impress the same lessons. Carelessness or indolence leave their mark, and the present-day kindergartner never sends home work that is not honestly the child's own. In all the work of the kindergarten, we value the individual contribution. The ability to transform a bit of paper or lump of clay into an object of beauty or utility develops a sense of power and self-respect. The opportunity for measuring one's work by his fellows' gives humility and incites to new efforts. The freedom in use of materials, and in methods, gives scope for initiative. As in the games the natural leaders are discovered, so in the handwork we read the character of the children and learn who need our help. To become efficient, one must enjoy some small success, must gain strength thru victory, and reach the point where he may contribute his mite to the work of the group. Children welcome so cordially original suggestions and rejoice in each other's achievements, that the backward child develops a new self-respect as he discovers his powers. One of Froebel's strongest contributions is his conception of the dignity of work—not slavish drudgery for mere existence, but the finding of one's self thru work, and revealing the divinity within.

There is danger of crowding out the child's creativeness by forcing our dictations upon him. Originality comes by way of imitation, but only enough is needed to arouse a desire to transform. The handwork and games do not exhaust the opportunity for self-expression. The "morning talk" is full of possibilities. Each child comes loaded with interesting experiences and until he has shared them he will not respond to the artificial interest presented. Here we find the key to his life, for he opens his soul to us. But Oh! the

pitiful waste when a kindergartner monopolizes the time by presenting scientific information which only has place as a child may be helped to discover it for himself. After each child has contributed his share, the kindergartner improves her time by directing all to one central thought and focuses attention by having free blackboard work. To kill the desire to illustrate the story told, by insisting upon formal drill, is again a waste of time. At this stage the child will attempt anything, but a little later he is conscious of his inability and then is the time to work for skill.

Since the public school has demonstrated that the kindergarten is not a luxury for the rich, nor a philanthropy for the poor, but the rational first step in our educational system, it is doing its part in obliterating class distinctions and upholding the American ideal that individual worth, rather than financial standing or social position, commands respect. All meet on the same footing, but special excellence in any direction secures honor. Honors with us are always opportunities to serve.

Our language and customs must be mastered before the foreign element can come under the power of our ideals, so the kindergarten becomes a factor in Americanizing the masses. Race prejudice does not appear among four-year-olds, and Chinese and Japanese are as cordially welcomed as the more familiar types, and their obedience, industry, and artistic skill add to the efficiency of the whole.

We strive for individual initiative, honesty of purpose, and personal responsibility, but are not satisfied unless the group work, the circle play, the common playground, result in the conviction that there are advantages in being members "one of another." Co-operation is a feature of kindergarten experience, and the self-centered child of the nursery responds to recognition of other selves, with like rights and duties, and the practice of the Golden Rule begins.

We point with pride to the forceful personality at the head of our nation, as the embodiment of our American ideal, and crave for these children the same splendid energy, efficiency and courage to stand for right. But such traits do not come by accident, and the parents who mourn the lack of sterling qualities in their children are more ready to blame "the times" than to admit loss of early influences. The world tries to train for patriotism, but trusts too much to firing the imagination by tales of war, stirring the heart and rousing noble sentiments, and failing to provide outlet for the emotion awakened. We need to exercise the will in heroic endeavor in commonplace tasks. The child must be given small responsibilities but held to the performance of these duties, if he is to be made ruler over great things.

To develop conscience is the joint work of teacher and parent. It grows with experience, and from the naming of individual acts as right and wrong to a grasp of the principle underlying these acts, until the child has a reliable guide within, which is as the voice of God, demands earnest attention. That so many children confuse moral questions with mere rules for convenience is

due to the unfortunate fact that so many habits which should have become second nature before school age, are left for the teacher to form, and thus the serious things—scorn for deceit, for meanness in any form, contempt for cowardice—are classed with slips in English or matters of courtesy.

It is customary to plead for the kindergarten as a preparation for the school. It certainly does this, but it has worth quite apart from its formal knowledge of color, form, number, and language. Its special function is to supplement the nurture of the home and establish right habits; not only habits of gait and general bearing, of voice and even of expression of countenance, and the mental habits of attention, observation, etc., but to give direction to the deep things of life; opening the eyes to the beauty of the world; stirring the soul by the mysteries of nature, and rousing awe which helps impress the imminence of God. If religion is to be a force in life, the child must never lose his sense of the conscious presence of God, and the assurance that the eternal life begins here and now.

That each division of the school course prepares for the next is true, but its worth does not depend upon that fact. I am impatient of that conception; it seems to leave something real out of life. Did not the Great Teacher give us the key when He said, "I am come that ye might have life?" His followers have not dared to take him at his word, but supposed he spoke of the future, and for centuries the world has missed the secret of living. It is only in our own day that emphasis upon the companion truth "the kingdom of heaven is within you" has brought reality into religious life. Is it not possible that in education we have failed to make each stage as worth while for its age, as well as a preparation for the next? Life was meant to be abundant for the kindergarten child, the grammar-school boy, the high-school student, as well as for the university man; and, perhaps, our failure along this line may account for the haste of the majority to escape from school to real life, before they are awake to the responsibilities resting upon each to uphold the ideals which are the heritage of the American child.

To sum up, the American ideal is threatened by—

1. A foreign invasion, ignorant of our ideals of purity, respect for law, and the sacredness of individual liberty.

2. The growth of a new class, the idle rich, lacking the same sense of responsibility for participation in the artistic, scientific, social, and political life of the nation.

3. Commercial and industrial competition, which is corrupting politics and lowering the moral tone in all departments of life.

4. An absorption in business and social affairs which is destroying home life.

The kindergarten is attempting to preserve the American ideal by—

1. Restoring home responsibility, through trained motherhood.

2. More thoro preparation of kindergartners, with spiritual capacity and power of leadership, as enthusiastic for social betterment in the community as for their own particular work.

3. Establishing kindergartens in which respect for law, reverence for truth, individual responsibility, and joy in service are practiced in a community of equals; Massini's ideal, the "progress of all thru all, under the leadership of the best and wisest." Here the

foundation is laid for that "aristocracy of intellect and service" which President Nicholas Murray Butler declares is the characteristic of the true democracy.

Let me close with the affirmation of that noble pioneer, Emma Marwedel, who brought the kindergarten to California and established it in our midst: "I believe in the power of the kindergarten thru the moral power of the kindergartner to reform the world."

MOTIVE FOR WORK

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Perhaps no educational department is so widely and so pronouncedly misunderstood as to its motive as the kindergarten. Not only may this be said of its patrons, fond and often ignorant mothers at all levels of the social strata, but it is true to an enormous and, at first glance, surprising extent of educators themselves. This gross general misconception is due probably to the fact that for a long time the kindergarten was set apart from the general scheme of education. There were the primary, grammar, and high schools and as a climax to the series—if one went on—the university. The kindergarten was a side issue, a little play or toy school—in the narrowest sense of the word play—sometimes functioning, sometimes not; always an extra, never an essential; always a special type or variation, never a universally recognized and accepted form of education. This being the case, the kindergarten as a factor in child development has not been seriously considered; therefore its motive has not been seriously studied by educators at large. Here and there, to be sure, we find most careful investigators, many of whom are able writers, so that we in America now possess, aside from the contributions furnished by other countries, a kindergarten literature of our own of no mean quality; but comparatively few people have been inclined to read these publications, and a still smaller number have felt the necessity for doing so. Kindergartners themselves are partially responsible for this apathy. Their sunny child gardens were filled for long years, notwithstanding the protests of many able leaders, with ignorant, poorly-paid women, who, dazzled by the bright colors and bewildered by the vast mass of novel materials thrust upon them, flitted hither and thither among the little people and their "culture stuff" like giddy butterflies, and displayed little more reason while flitting than these care-free flower-lovers.

But all this is ancient history; the kindergarten has found its place in the educational scheme, and tho there are striking exceptions, kindergartners today, as a rule, understand, at least as well as other teachers understand theirs, the problems set them. Nevertheless, for the reasons just stated, they by no means have as yet succeeded in making "the people" understand.

The great problem of the kindergartner is not different in the main from that of other educators. Can any clearer statement be made of it than the following by Professor Edward L. Thorndike in his *Educational Psychology?* [1]

[1] P. 79.

The work of education is (1) to supply the needs of the brain's healthy growth and to remove physiological impediments to it; (2) to provide stimuli to desirable mental variations and to withold stimuli from the undesirable; (3) to make the outcome of desirable activities pleasurable and to inhibit their opposites by discomfort.

The three chief practical problems of education would thus be those of hygiene, of opportunity, and of incentives and deterrents.

The conscientious teacher often asks herself, How can I best deal with the child at this period of his life in order that it may yield its fullest and richest value? It follows logically that an impoverished life at one period means a weakened life at the next, and conversely. The argument often advanced that a child entering the primary school directly from the home does brilliant work and advances rapidly thru the primary and grammar grades is no criticism at all upon the kindergarten. Who can say how wonderful might have been his proficiency or how rapid his development had he been subject to kindergarten stimuli? The other thesis, that the kindergarten child does not always take to primary school methods with ease and docility is likewise challengeable. The ease with which he does take to them may be largely due to his kindergarten life, or we might ask, are the primary school methods always those that well-developed six-year-olds find interesting and profitable?

The kindergarten, as well as the other departments of education, has been and is in progressive evolution. The intelligent kindergartner no longer blindly follows the theories of Froebel or Pestalozzi, any more than does the intelligent primary teacher depend altogether for guidance, as she did very generally not many years ago, upon the average accumulated experience of her predecessors. The kindergartner no longer points with pride, as she sometimes used to, to the results obtained in various forms of handwork, e. g. pricking patterns upon cardboard, any more than the thoughtful teacher in the grades congratulates herself upon the ability of her pupils to state certain facts in history, arithmetic, or grammar.

The emphasis today in education is an emphasis upon interest in what is worth knowing and zeal in its pursuit, rather than upon the accomplishment of a finished amount of work, mental or physical, or even upon the ability to perform the work. We care less what a man knows than for what he is desirous of knowing, less for what he can do than for his attitude toward work. The life of the educated man is a life of voluntary action in a right direction. It is the function of the school to provide, so far as possible, the proper stimuli and deterrents to make not only possible but strongly probable such life.

Psychology, sociology, ethics, as well as the long-established sciences, are gradually furnishing us with certain data upon which we may formulate educational principles. The kindergartner in common with other educators eagerly seeks for these data. She knows that the mind of the little child is analogous to that of the adult; the two are similar but not alike. She learns as much as possible about the make-up and functioning of her own mind. She tries to apply this knowledge to the study of the child mind. She studies the laws of society and tries to understand what is meant by a "good citizen."

She learns to discriminate finally between forms of right and wrong action and turns to various sciences to see what they have to teach her of precision, accuracy, patience, conditions of experiment, truth. And then she turns again to her kindergarten. To know as much as is possible of the physical and mental condition of each child under her direction, to study inherited traits and home environment, and with this knowledge to set about a work of definite and deliberate change to be wrought in each bit of humanity: this is the self-constituted task of the professional-spirited kindergartner.

How does her work differ from that of other teachers? The work of the kindergartner is of a more positive nature. The child comes to her with less experience of the world of any kind. The influence of environment, good or bad, has not had time to change in any marked degree his original self. Action in any particular direction has not been continued long enough to become habit. Curiosity has not yet been killed or even very much curbed, neither has its field of operation been very wide or fertile. Imitation has not gone sufficiently far to become second-nature. Rivalry, emulation, courage, aggressiveness, self-reliance, timidity, selfishness, generosity, vanity, co-operation—no one of these tendencies has been given opportunities striking enough or often enough repeated to be classed as characteristic. In a word, the kindergarten child is more a bundle of natural than of acquired tendencies.

Her problem is less complex than that of the child's later teachers. She has less to do with the breaking of habits, because, speaking broadly, we may say that no strong habits have been formed. She has much to do, however, with the formation of habits, and in providing opportunity for their proper development and exercise, she has a problem sufficiently important and difficult.

It is in the study of the natural tendencies of individual children and their expression, in other words, in the study of children's motives and their direction into avenues of desirable work that her chief function lies. No teacher has so little excuse for repression, for the simple reason that there are fewer tendencies to suggest the method of repression; no teacher, perhaps, has so great a responsibility for the simple reason that there are so many chances for wrong expression, bad habit formation, undesirable work.

Any form of expression engaged in with zeal is work. Certain forms of what is commonly termed play may very properly, according to this definition, be classed as work. This the writer understands; but the walls between play and work are so low and weak as constantly to need propping upon one side or the other, and the enormous gaps between the two fields are so apparent that it seems absurd to try to draw any hard and fast line between the two. The kindergarten, e. g., far from being designated a mere play school might far more properly be called a garden in which children work, not toil, and the work done in a kindergarten in which selection of stimuli has been careful and direction of child motive is wise, certainly compares favorably in value to that done during any period of equal time during the child's school life.

The selection of work-inspiring stimuli rests, of course, with the kindergartner; the motive for work is to be found in the child himself. Artificial incentives for work in the kindergarten are neither necessary nor advisable, and their employment by any teacher whatsoever is too often due to lack of knowledge of how to use motives already in the child mind.

Roughly, then, the method of procedure is blocked out; it is the same for all kindergartners. What truths, if any, have been discovered? How is the kindergarten child differentiated from children of a larger growth and from adults? What with him can we count upon as a motive for voluntary work?

The most noticeable trait, apparent even to the casual observer, is physical activity. The kindergarten child is predominantly active as compared with others. He likes movement for its own sake—and truly the granting of opportunity of movement for its own sake would be a boon to many a child. But the wise kindergartner utilizes this natural motive for motion and makes of it a motive for work involving motion. She realizes that this movement ought to be self-directed to a great extent, that it must call for the exercise of the power of choice, that it must lead to production of some kind, that in its progress it must not interfere with the rights of others, that it must take the form of co-operation, that it must be of such a nature and continue for such a time as to further, never to hinder, healthy, normal physical development. Games, then, are not played for mere amusement. Songs are not sung for entertainment. Handwork is not provided merely to keep the child busy, nor, on the other hand, for the finished production which may follow. Pictures are not drawn to serve as specimens of childish art. The work in the mind of the kindergartner to be wrought is real work, work that carries with it power and dignity, work that is thoroly enjoyed, and the motive for it she finds in the child in irrepressible movement.

But this tendency to irrepressible movement is not confined to his physical nature. His mind, as is ours, is in a constant state of flux. The mind of the young child, however, is in a special or unique state—that of passive attention. If he be a normal human being of four or five years, he must attend to the sights, sounds, and other stimuli offered by the outside world. He is more of an animal than he will be later. The animal who refuses thus to attend fails to survive. The child who is unable thus to attend is abnormal, unfit. Yet these brief periods are at the same time periods of interest, and, if the proper stimuli be provided, are periods of great and valuable mental growth. The motive for work in this case is simply an overpowering tendency to be constantly in a peculiar state of mental activity. The work is the change that goes on in the child's mental complex during these rapidly passing periods under the influence of carefully directed stimuli. The motive for work then is again irrepressible movement, but in this case mental movement.

Much that this new and strange world brings to the child he is not ready to receive. It bears no content, carries with it no meaning, but there are certain tendencies either natural or easily and early acquired that almost never fail

to appeal to him. Among these is the inclination to collect things, a form of activity both mental and physical. Given the proper stimulus, i. e., the one that appeals to the child as an individual, and this tendency to collect may result in work of huge proportions. If the tendency, as frequently happens, be merely the collection of any objects whatsoever, simply the gathering together of material, then it is the kindergartner's privilege and duty to provide material of educative value or to lead the child to find it for himself. The child thus directed becomes a changed being simply thru the utilization of his motive for work, which was a crude, uncultivated, restlessness forcing him to act in a certain ill-defined, but positive way.

Lacking almost entirely the knowledge and content of words, it is no wonder that the child ideas are largely composed of symbols of a different kind. They seek for expression of their ideas, however, quite as eagerly as do children of a larger growth, but more emphatically than they in the form of dramatization. It is only thru their bodies that they can make themselves clearly understood. It is only thru the bodily actions of others that they are able fully to understand them. The same sort of irrepressible energy that impels them almost constantly merely to move impels them frequently to move in living pictures. Life is a medley of disconnected incidents. The desire to set forth the incidents experienced is all-forceful. Surely it is not necessary to point how eagerly the kindergartner seizes upon this tendency to accomplish work. The child in the kindergarten who has been permitted to work with ideas in this way knows far better how to work with them in a more abstract form when he is ready to step forth into the larger world of word ideas. Who shall say which form of work is the more valuable in bringing about desirable change? In fact, the change wrought in a child's mental and ethical nature by work done in wisely selected drama can hardly be estimated, and its value can hardly be overestimated. Again we find the motive for work emanating from the child himself.

Not only is the kindergarten child interested in his own action and that of his fellows, but all that moves holds him a willing captive. He unconsciously stretches forth his hands to the flying bird, imitates the motion of the running horse, or follows to its hiding place the shy rabbit. All living, moving things wield a power over him. It is not that he wishes to attend; he must attend. And so the kindergarten is filled with live animals, the living-conditions of which are as nearly as possible like those of their free brothers; or, better still, the children and animals live together in a veritable out-of-door kindergarten—permissible in many parts of our country—and are taken frequently from their own little garden out into the larger one of the adjoining bit of world. Who can ever hope to trace the changes in brain-cell patterns that must result? The motive supplied by the child himself, intense active interest in living, moving animals, the kindergartner obtains, in addition to actual knowledge of animal life, increased sympathy, respect, pity, tenderness, love for, and actual care of, animals involving various forms of

mental and physical work. The motive for work is once more child-born.

Sometimes two tendencies—two motives of action or work of opposite types are made to co-operate admirably. There is in all animals—and the human being is no exception—the instinct for self-preservation, expressing itself often in young children in a kind of aggressive self-defense exercised without necessary provocation. We say the child likes to fight. There is also prominent in most children the parental or protective trait as shown in love for and care of babies, dolls, animals, "teddy bears," etc. The desire to fight can certainly also be traced to this origin. The kindergartner simply directs the tendency into its proper channel. The kindergarten child who involuntarily flushes and clenches his small fists when he sees an animal cruelly hurt or a weak or deformed child cruelly teased is on the high-road to good citizenship. The world needs fighters of this sort; and the motive for this form of the world's work does not have to be artificially supplied.

It is the tendency to imitate that leads a child to wish to do what he finds others doing. This is, obviously, one of the most fruitful sources of education. The amount of hard work accomplished thru imitation among children is enormous. The kindergartner skilfully turns the motive for work of mere imitation into desire for co-operative work where imitation is more or less called into play.

But why multiply instances? The purpose of this paper has been accomplished if the following points have been made clear:

1. The kindergarten has a recognized place in the scheme of education.
2. It is in a state of progressive evolution.
3. Its general problem is not radically different from that of other educators.
4. It deals with children at a time when they are in a peculiar mental condition.
5. Its function, like that of other departments of education, is to supply desirable forms of work.
6. The motives for this work are to be found in certain powerful tendencies inherent in the child himself.

HOME AND SCHOOL LIFE IN GERMANY

AMALIE NIX, PRESIDENT OF THE GERMAN PEDAGOGICAL SOCIETY OF MINNESOTA, ST. PAUL, MINN.

For the past twenty-five years many of our great scholars have crossed the ocean to study at the universities of Germany, to acquire that knowledge which they have sought in vain in our youthful mother country. More recently, the school system of Germany has been made a subject of study by our teachers and students of pedagogy. Most of these agree that the present high standard of intelligence of the German nation has its origin in the careful training of the child. Whether on American, English, or German soil, child-nature displays a striking resemblance everywhere. The duty of molding the

character of developing and cultivating those qualities in children which will make them noble men and women—worthy citizens—is left to the mother, father, and later to the teacher. Children are taught to be industrious in Germany, respect older people, be courteous and charitable to everyone. The typical German home justly deserves being called the preparatory department of the primary school. The spirit of reverence shown here for parents, sisters, and brothers, the sweet spirit of submission to all parental authority, is particularly noticeable and impressive to the observing stranger. The sunny expression on the children's faces prove that they are happy to obey, and to recognize law in their own homes. A spirit of harmony pervades the atmosphere of most German homes, another admirable feature which a foreigner observes. From these relations necessarily follow the beautiful ties of affection that bind together the different members of a family forever. In mentioning respect shown for age, I ought to have added that this applies to things as well as to people. Children take pride in being allowed to sit in the same chair, or use the same old-fashioned writing desk which had once been prized by a great grandfather or other ancestors. Even mothers are proud of showing their thirty- or forty-year-old son's or daughter's first little chair or table, yes, all their schoolbooks from the days of their childhood. And how neat these are kept! This is especially surprising to Americans, who could hardly speak in Germany of the widespread custom of buying and selling schoolbooks here second hand. The lack of piety shown by such a deed would horrify our German friends. We know well that the buying and selling of old schoolbooks is not confined to the poorer classes in our country.

You are all aware that the Germans are exceedingly fond of outdoor life. Often they go many miles from a city to a distant suburb or another city, as from Berlin to Potsdam, or into the country on foot, generally accompanied by their families. During the pleasant spring, summer, and autumn months breakfast and supper are served in the garden. Most professional people are not early-risers, neither do they retire early. In Berlin, for instance, you see the same number of people on the street at twelve o'clock at night as at twelve at noon.

Perhaps a touch on the servant problem might be of interest to you in connection with what I have to say about the German home. Servants are cheap and plentiful, are engaged by contract for a year, and obliged to furnish references. If dissatisfied, they must inform their mistress three months before leaving of their intention of changing. The mistress of the house is governed by the same rules. A servant cannot be dismissed without extending to her the courtesy of a fair warning. As a consequence, we find in many German homes old, reliable servants, who have spent probably half of their life-time, or more, in the same family, sometimes serving the next generation. In speaking of servants, I would include nurse girls who take care of children under the age of four. The children of the well-to-do and wealthy classes are turned over to a governess, who must hold a teacher's diploma.

The governess has charge of them until they are old enough to attend school, in some families longer. She eats at the family table and is considered a member of the family. If in moderate circumstances, the mother guides and instructs her children until they are old enough to attend school.

We cannot help feeling that the German home is an ideal home in many respects.

> Sweet is the smile of home; the mutual look,
> When hearts are of each other sure;
> Sweet all the joys that crowd the household nook,
> The haunt of all affections pure.

Our American educators who have studied in Germany have expressed their appreciation of the German people by the significant words: Das Volk der Denker—the people of thinkers. That the German nation deserves to be called "Das Volk der Denker" is proved by the excellent schools which we find in Germany. The schools of Saxony rank among the highest and none are superior to those of the province of Thuringia. The teacher who is favored to visit the schools of Blankenburg, Weimar, and Jena finds that, beside stepping on sacred historical and classical soil, he has been rewarded by gaining considerable knowledge thru this valuable observation trip. He realizes that he is benefited in his psychological researches, that he is inspired by the new educational thought, altho he may be surprised to learn that coeducation is still in its infancy. But also in this direction some progress can be detected within the past few years. In most schools the boys are separated from the girls, still there are those which are coeducational. Prominent educators are beginning to see that the false barriers which had been erected long ago can entirely be done away with by coeducation. They know that, after having tried the experiment, from the moment their schooling begins, the relations of the boys and girls assume an entirely natural aspect; there is no mystery, no nonsense. They have also discovered that the presence of girls has a refining influence on the boys, making them gentler in manner and more careful in speech, and that the boys teach the girls self-reliance. Most German universities have become coeducational during the past ten years; altho it is still difficult for a woman student to obtain a degree, which seems strange, since Germany's most noted professors have by far a greater admiration for the successful scholar than for his degrees. Women can, however, take special work and are given credit for showing a marked progress in this, provided that they come well prepared, and have acquired a thoro knowledge of the German language. Normal school diplomas are recognized abroad and the progressive American teacher who enters a German university is held in high esteem by Germany's greatest scholars. Her fame depends on the results obtained; if these are of an inferior kind, the degrees, which accompany her, when admitted, are worthless. The boy from a country school who comes to us now with the proud remark that he had just completed the sixth reader before leaving his school and asks for admission to the seventh grade will be

examined and probably placed in the fourth grade. You who heard Ella Flagg Young's address on Monday evening are all heartily in sympathy with her views on the degree question. If degrees were conferred only upon professional people of superior educational standing, they would be of great value. I wish to call attention to Mark Twain and Minnesota's great governor, Johnson, who have both been honored recently with degrees from universities of standing. Men and women of superior intelligence are recognized abroad, and more and more in our United States also, in no little measure due to the elevating influence of our intellectual, broad, and just President Roosevelt.

In returning to Thuringia—in German, Thüringen—"das immergrüne Herz Deutschlands," or "der Garten Deutschlands," I can assure you that a trip to Blankenburg alone would justify the use of the adjective "sacred." But some of you may have been in Blankenburg and, like myself, may have been silenced at first by the grandeur of the scenery and next by the memories of days gone by. A glance at the time-worn "Froebelhaus," at the modest monument erected to Germany's ideal teacher, Friedrich Froebel, with its significant inscription, "Kommt lasst uns unseren Kindern leben!" and his favorites—ball, cylinder, and cube—above, is an inspiration to the teacher, never to be forgotten. The father of the kindergarten—your and our much admired Froebel—lived and worked here for many years. It is a great pleasure to converse with the people, who still remember Froebel, or can relate what their parents knew of him, his striking personality, his kindergarten, and his famous school for kindergartners, his girls' training school.

The German people consider Schiller the ideal poet of Germany; Goethe the greatest poet; the ideal teacher is Friedrich Froebel. Schiller, Goethe, and Froebel lived, worked, and died in Thüringen.

You have heard that less is known of Froebel's life than of his works. When I spoke to you of the ideal German home, you knew that Froebel's home—the home in which he was born—could not be included. Born April 21, 1782, in the village of Oberweissbach, as the third son of a preacher, he lost his mother when but a year old. Between the ages of three and thirteen he was under the supervision of a stepmother, who did not understand child nature. In the impressionable years of his childhood, he was deprived of his freedom, not even allowed to come often into contact with the great "book of nature." Instead of the sunshine of motherly love, the most rigid form of discipline reigned supreme in his father's home. In spite of these unfortunate conditions, the boy's tenderness, his love for what is good, true, and beautiful, could not be crushed. It was by accident that an uncle appeared one day in the preacher's household. His sympathy for the unhappy boy was aroused, so he asked permission to take Friedrich with him to his home. And the parents let him depart willingly. The uncle brought Froebel into a home where he could enjoy nature, freedom, and the association of playmates. At the age of seventeen we find him studying forestry; at eighteen, a student

at the university of Jena. Later he accepted a position in Herrn Gruner's model school in Frankfurt-on-the-Main. The latter was a great admirer of Pestalozzi, the famous pedagogue of Switzerland, whom Froebel met for the first time during his vacation. The following year he entered Pestalozzi's institution, both as student and instructor. And later we find him again in Germany at the University of Göttingen first, then at Berlin. In 1817 he and his friends Langenthal and Middendorf opened their noted high school for boys in a farm house of the village of Keilhau. At first only Froebel's five nephews were enrolled in this school, but the number increased rapidly. Froebel, believing that proper attention should be paid to the training of the hand, without neglecting the intellectual and moral training of his high-school boys, taught them the essentials of manual training systematically, freehand and instrumental drawing, the use of common tools theoretically and practically. According to Froebel, a one sided intellectual training produced narrow-mindedness. He was the first educator who accomplished an all-round, broad education, by developing systematically mind, soul, and body. Our own and other nations have borrowed Froebel's manual-training suggestions later. You know in what high esteem manual-training schools are held by us today; know what an unusual degree of efficiency their pupils attain, also that the tendency of education is becoming more and more practical. But have we given due credit to Froebel for laying the foundation of our modern manual-training school? Among those who had come to assist Froebel in his high school at Keilhau, none were more enthusiastic than Henriette Hofmeister, who became his wife afterwards. In the year 1831, however, the school had to be closed on account of financial difficulties. Burgdorf claimed Froebel next as director of an orphans' home, principal of a "Volkschule" and a teachers' training-school. Here the little children were his favorites. For the first time in his life Froebel realized that his future ought to be devoted to the education of little children from the age of four to six. In 1837 he established a school for little children in Blankenburg, somewhat later a training-school for kindergartners. He believed that the lowest school should cover the play period of a child's life, and that play should be to the child what work is to the man. By means of songs and games Froebel succeeded in arousing the religious, the ethical, and the esthetic sentiment in the child. His mother-play and nursery songs, his gifts and occupations are as familiar to us here at present as they are in Germany. You know that Froebel could not find a suitable name at first for this institution for little children. But one day the beauty of the surrounding country caused him to exclaim: "Ich habe es gefunden. Kindergarten soll die neue Anstalt heissen!" (I have found it. The new institution shall be called children's garden!) And his tender plants, the little children, were certainly cultivated by sympathetic gardners, the kindergartners.

In order to fully understand Froebel's great pedagogical works, which America—our United States—has adopted, a thoro study of the German

language and of German customs would be very helpful to the kindergartner and the teacher. The same may be said of the works of Pestalozzi and Herbart, two other educators who have held a warm place in the hearts of all progressive teachers. Froebel, Pestalozzi, and Herbart are all classified among our reformers on the field of pedagogy. Froebel's creative power, his charming manner with little children, the breadth of his teaching, his inspiring influence, and last, but not least, the degree of efficiency his pupils reached, place him in the ranks of great teachers, of whom the world has seen but few. Froebel, the pedagogical genius, has probably exercised a greater influence upon our educational ideals than any other educator. With the kindergarten he has given us the primary manual-training school, which has become so popular that it can never pass out of existence. You know how rapidly it has spread for the past twenty years, what great progress it has made here in Nature's sanitarium, in the land of roses, where we enjoy this great Convention, the fiftieth anniversary of the National Educational Association. Altho changes adapted to the conditions here in our Union have been made in the kindergarten, we must not forget that our model will always be a Froebelian kindergarten. Froebel was the founder, the father of the kindergarten, and to him we should be grateful. The names of Mrs. Kate Douglas Wiggin, Professor and Mrs. Hailmann, Miss Peabody, Miss Blow, Mrs. Hubbard, and many others will always rank prominently for the excellent work they have accomplished in carrying out Froebel's ideas, at a time when the kindergarten was not regarded favorably by the general public.

While in Germany several years ago, I had the pleasure of visiting a Froebelian kindergarten, conducted by Fräulein Schellhorn, in Weimar, the classical city of Germany. Fräulein Schellhorn was a member of Froebel's last teachers' training-class—a very old lady, but youthful in appearance. The little children were instructed among large flower beds. Here they worked and played, themselves the choicest of the flowers. The elevating influence of the environment with which these little ones were blessed was quite perceptible. Altho small, their young minds had already passed the stage of infancy. They were full of activity and enthusiasm, characteristic to their age, still they began showing an intellectual ability which was quite surprising to me. It was an opportunity for studying both a psychological and a sociological problem.

That Froebel was a philanthropist of the noblest type, he proved to those with whom he came in contact. To his teachers he was a friend. He had full confidence in the power of an experienced teacher.

It may be well to state right here that a time limit in the teaching profession is almost unknown in Germany, even should a teacher confess that she has reached or passed the age of forty. Teachers are treated with great respect—experienced teachers in good standing being fairly worshiped. They are given permission to express themselves on any subject freely, The dropping of such teachers being an impossibility, they do not fear that they might, at

the end of the school year, be discontinued in their positions. The wholesale dropping of teachers, without providing for them—a somewhat cruel custom, which still prevails in some of our American cities—recalls to me annually the German fairy tale, "Die Bremer Stadt musikanten" (The Musicians of the City of Bremen). You are all familiar with it, your little children's eyes are filled with tears and their hearts with sympathy for the animals, while you are relating it. The donkey, the dog, the cat, and the rooster, all dismissed by four cruel masters, because their period of usefulness had passed—they were old. They decide to wander to Bremen and organize a music band. You know the rest, and what a beautiful lesson it teaches, what an impression it leaves. The great difference between the end of this fairy tale and that of the real dismissal of the so-called superannuated teacher is that the animals find a home, while the teacher who has sacrificed the best years of her life for her profession is homelesss

As politics cannot enter into the German schools, no teacher can be appointed thru influence of any kind, but strictly on the strength of his merits. While his income may not be half as large as that of our American teachers, his expenses are less, and he can rest assured that the government has made ample provision for his future by keeping a good pension for him in store when he wishes to retire, on account of illness or old age. In the treatment of her teachers, Germany also proves her superiority in point of culture—her respect for what is humane.

To come back briefly to Froebel, I wish to emphasize again that he retained his energy, his pedagogical enthusiasm, up to the time when he entered into rest in 1852. Tho age had been advancing, his usefulness was not impaired. Teachers, can we not learn a lesson here also?

Und fühlst dein Herz du krank und alt,
Lass es mit Kindern spielen,
In ihrer Welt, ach wirst du bald
Verjüngt dich wieder fühlen.

Und schrecken dich der Qualm und Rauch
Im grossen Weltgetümmel,
Geh', schau in deiner Kinder Aug',
Du schaust in einen Himmel.

Before closing I shall speak to you briefly about The Athens of the River Saale—"Das Saale Athen Deutschlands" the German center of pedagogical progress—Jena. It was at Jena where Schiller and Fichte were numbered among the professors of the university, where Goethe exerted his influence, and where Napoleon won the decisive battle on October 14, 1806. Wilhelm von Humboldt, the two brothers von Schlegel, Voss, Schelling, Reinhardt and Erich Schmidt were contemporaries of Schiller and Fichte at Jena. We can hardly pass thru a single street where our attention is not attracted by some memorial tablet by which Jena honors her great men of the past. And Jena has in her midst great men of the present day. Among these, none are of

greater interest to the teacher than Professor Dr. Rein, who holds the chair of pedagogy at the university as one of Herbart's and Zillar's most enthusiastic followers. Professor Rein is also at the head of the pedagogical seminary and practice school, which are connected with the university. In 1904, Professor Rein was the only professor of pedagogy who was honored with an invitation, from Europe, I think, to attend the International Congress of Arts and Science at the Exposition in St. Louis.

In his work on *Herbart and the Herbartians*, Professor Charles De Garmo says:

> So long as men merely lecture at the universities, or write their opinions in their books, the world at large does not know whether their theories will work in actual practice or not. Dr. Rein has made the pedagogical seminary the most noted of its kind in Europe, to which students resort from every civilized country. His specific contribution to the Herbartian cause lies, not so much in the promulgation of new ideas, as in the practical application of the important ones that had remained mostly untried.

According to the historic genetic principle involved in the Herbartian system, history forms the basis of the plan of instruction, the center from which the other studies diverge, like the branches of a tree from its massive trunk. Every lesson is based on five formal steps: 1. Preparation; 2. Presentation; 3. Association; 4. Drill; and 5. Application. Wherever the Herbartian system with its principle of correlation as the central thought is employed admirable results are obtained. Character-building is the first aim of every recitation, acquisition of knowledge the second.

The pupils acquire a thoro knowledge of every subject included in their course of study.

Professor Rein also organized the first university summer school in Germany in 1889, and still conducts it. It is considered the best summer school in all Germany, where excellent courses in pedagogy, theology, philosophy, etc., are offered by some of Germany's greatest scholars. Three times I have been in a position to notice its progress—once as a student and twice as a student and speaker besides. Of all the speakers, Professor Rein draws the largest audience. Our meeting here is a national meeting, the value of which we all realize. The summer school sessions at Jena are international sessions, which are likewise very helpful to a teacher. My advice is to attend Dr. Rein's summer school when abroad; it will prove an inspiration to you which will last for years. The association with those of our profession from foreign countries may be considered equal to a special course in pedagogy and educational psychology. The majority of teachers seeking higher education in Jena come from Germany, Austria, England, America, Sweden, Denmark, and Finland.

It is hardly necessary to tell you that the German people are pervaded by a spirit of honesty, which does not permit them to swerve from what is just and right. By the extension of moral and mental culture, Germany has grown into an educational center, of which the German people may well be proud.

DEPARTMENT OF ELEMENTARY EDUCATION

SECRETARY'S MINUTES

FIRST SESSION—Wednesday Morning, July 10, 1907

The department convened at 9:30 A. M. at the Immanuel Presbyterian Church, Mrs. Alice W. Cooley, the president, in the chair.

Owing to the absence of the secretary, Miss Emma C. Davis of Cleveland, O., was appointed secretary by the chair.

The session was opened by an introductory address by the president giving a comprehensive view of the topic of the session: "Potent Factors in Teaching Oral Reading and Oral Language," with the relation thereto of the several topics to be discussed.

The first paper on this topic was presented by Henry Suzzallo, adjunct professor of education, Teachers College, Columbia University, on "The Story and the Poem."

This was followed by a paper discussing "Story Telling and the Poem," by Miss Emma C. Davis, supervisor department of English, Cleveland, Ohio.

Professor Thos. C. Blaisdell, Department of English, State Agricultural College, Lansing, Mich., followed with a paper on "Dramatizing."

"Expression by the Hand" was then discussed in a paper by I. C. McNeill, superintendent of schools, Memphis, Tenn.

Upon motion, the president appointed the following committee on nominations:

James F. Chamberlain, Los Angeles, Cal. S. L. Heeter, St. Paul, Minn.
Chas. H. Keyes, Hartford, Conn.

The papers were discussed by John S. Welch, supervisor of grammar grades, Salt Lake, Utah; J. F. Reigart, principal of Public School No. 2, New York City; L. E. Wolfe, superintendent of schools, San Antonio, Texas, and Henry Suzzallo, Teachers College, New York City.

The department then adjourned.

SECOND SESSION—Friday Morning, July 12

The department was called to order at 9:30 A. M., the president, Mrs. Alice W. Cooley, in the chair.

James F. Chamberlain of the Los Angeles State Normal School presented a paper on "Geography in the Life of the Pupil." Superintendent A. L. Hamilton of Pasadena discussed Mr. Chamberlain's paper.

Harold W. Fairbanks of the U. S. Geological Survey, Berkeley, Cal., continued the consideration of one phase of the main topic in a paper on "Illustrative Excursions for Field Sight." C. T. Wright, supervisor of geography, city schools, Redlands, Cal., discussed Mr. Fairbank's paper.

"The Emphasis of Commercial and Industrial Geography" was the topic discussed in the next paper by Superintendent S. L. Heeter, St. Paul, Minn.

"History in the Life of the Pupil," was presented in a paper by Walter A. Edwards, President of Throop Polytechnic Institute, Pasadena, California. The paper was discussed by Miss Agnes Elliot, head of the Department of History in the Los Angeles Normal School.

Following this, Professor Chamberlain at the request of the president, summed up the points considered in the several papers.

Report of the committee on nominations was made by the chairman as follows:

For *President*—J. K. Stableton, superintendent of schools, Bloomington, Ill.
For *Vice-President*—Miss Adalaide S. Baylor, superintendent of schools, Wabash, Ind.
For *Secretary*—Miss S. Belle Chamberlain, state superintendent of schools, Boise, Idaho.

A motion was made and carried that the report be accepted and that the nominees be declared elected. The president closed the meeting with an expression of appreciation of the work of the contributors to the program and of the local committee. The Department then adjourned.

EMMA C. DAVIS, *Secretary*.

PAPERS AND DISCUSSIONS

INTRODUCTION BY THE PRESIDENT

ALICE WOODWORTH COOLEY, GRAND FORKS, N. D.

Hundreds of us climbed over and shot thru most stupendous mountains; slid down into and crept up out of deepest cañons; and panted across scorching and seemingly pathless deserts to what we had ignorantly thought to be the southwestern jumping-off place of our country. At last arrived, we find our destination to be the center of the universe. So we have great reason for congratulation this morning.

Truly it is a matter of great significance that so many of us have thus journeyed for days and nights over mountain, cañon, and desert because of our interest in our chosen work. It is significant, too, that with so great a variety of good things inviting us this morning, so many are here to evidence their appreciation of the vital importance of the elementary work. And we assume that we are here because of our live interest in the live topic to be presented.

A brief glance at the program shows that each address is a part of one whole—these parts woven together by experts in both theory and practice. The president's part of the program is to give merely the prelude; to call attention to a few main features of the morning's discussion.

There is concentration of attention on the one subject, development of oral self-expression. More than this, concentration upon a particular phase—the great factors to be used in this development. In the word factor we strike the keynote. In the grouping of the words "oral reading and oral language" we strike the dominant chord, to emphasize the fact that there can be no true teaching of the one that does not give increased power in the other. Both are forms of self-expression.

This program has been made to meet the demands of present conditions. For more than a quarter-century colleges and universities have been castigating us for the noticeable lack of early language training in their students; educational clubs thruout the country have been continuously "resolving" that the "correct use of the English language must be taught in the elementary schools;" leading periodicals and current magazines have taken up the cudgels

and laid upon us the responsibility for "English as she is spoke." And these criticisms are just. In these days of art-revival, when we are so vigorously preaching the gospel of beauty and the necessity of cultivating the sense of beauty, this great universal art is most neglected. One rarely hears in conversation the choice, beautiful English that is our inheritance. Our ears are made constantly familiar with ungrammatical and provincial expressions, used by boys, girls, men, and women, who have spent years in our public schools, and who frequently tell us they have "been thru" language, grammar, and literature.

Again, we have for years discussed all phases of this problem in conventions and institutes—national, state, city, village, and rural. We have learned by head, if not by heart, the physical, metaphysical, aesthetical, philosophical, biological, psychological, and pedagogical reasons why language development is absolutely fundamental in education. And after all this, we return to the schoolrooms of our country to find very little growth in actual language teaching. We find schools in which "language is taught incidentally;" schools where grammar lessons of varying degrees of solution and dilution are taught under the guise of "language lessons;" and schools in which all kinds of mechanical devices and exercises masquerade as language work; but we find very little true, strong, vital language teaching.

Many, many teachers are awake to the necessity of doing something who have most vague and hazy ideas of that something to be done. For these reasons, therefore, emphasis is laid this morning on the factors, the means to be used in the twofold nature of language teaching, the two phases that joined by nature cannot be "parted asunder." These are, as we know, cultivation of the ear to quick, keen discrimination between the beautiful and the ugly expression—between the true and the false; and the establishment of the habit of right usage.

The subject has been chosen for this particular time and place with the thought that the function of the National Educational Association is not merely to talk and possibly influence theory, but to mold practice. It is our most earnest hope that the messages brought to us by the speakers of the morning—men and women who have proved the potency of these factors by experience—may be to each individual as so many bugle-calls to more effective work in the language development of children. None can measure the service to humanity if we who are here help the children who come to us in the future to more adequate self-expression. It means for each child so helped, unfolded life with greater power for service. In this way the work of the teacher of language never dies, but abides as a mighty and generative force, playing its part in the up-lifting of humanity. May we enter into this holy privilege and thus prove ourselves one of those whom Robert Burdette described to us as "teachers come from God." And may this morning of July 10, 1907, bring us new inspiration, new consecration, and new determination that shall bear fruit in the lives of children.

POTENT FACTORS IN ORAL READING AND ORAL LANGUAGE

I. THE STORY AND THE POEM

HENRY SUZZALLO, ADJUNCT PROFESSOR OF ELEMENTARY EDUCATION, TEACHERS COLLEGE, COLUMBIA UNIVERSITY, NEW YORK CITY

[CONDENSED STENOGRAPHIC REPORT]

The tendency of the modern school to become an institution designed to give more than an appreciation of knowledge is clearly manifested by recent school curricula. Within the past decade or two the expressive subjects have come to occupy a larger place in instruction. Drawing, music, manual training, and composition have been given larger attention of late than in previous years. The importance of expression in the learning process has become quite obvious from the very beginning of the experiment in the use of active subjects. There is no final test of the rightness of feeling or of the accuracy of thinking like the action or expression which is the result of these. We are realizing more as we proceed that the school must turn out men with more than appreciative power. Its men must have the ability to influence life thru expressive ability. Thus far our efforts have been fragmentary, however, and it seems a meet time to consider from a unified and broad point of view the expressive work of the school, and more particularly for the purposes of this address to show the place of the story and the poem.

There are many types of expression thru which man comes to influence himself and the world in which he lives. Some of these are in analysis, simple, others are complex. For purposes of convenience and clearness one might say, that there are four simple types of human expression and action. These we may term, (1) organic expression; (2) reconstructive expression; (3) representative expression, and (4) expression thru language. Other important types which are combinations of two or more of these might be noted, such as the forceful expression of a great executive, who does his creative work mainly thru the control of men. Dramatic expression, which is also a combination of these various types, might likewise be noted.

The first type of expression, which I have chosen to call organic expression, is the expression of human life which man gives thru his own physical organism. Movement of all sorts, facial expression and every other form which reveals the human mood may be included under this head. From the play of the child and the irritation which a man reveals thru the nervous readjustments of his body up to the fine art of pantomime and facial expression as revealed in the drama is a series of human manifestations which make up the influential factors in human personality. Find a man who is devoid of personal expression of this organic type, and you will have a man who is likely to be personally uninfluential among his fellow beings. In the order of precedence organic expression is the most instinctive and is the first general power of expressiveness which a child attains.

But a child not only makes over himself readjusting his inner states by

his organic actions; he goes farther and becomes expressive and creative with the world beyond his physical self. When a child changes an object from one position to another or tears it to pieces, scattering its fragments, or builds the torn fragments together again, he is modifying the world in which he lives; he is engaging in reconstructive expression. This is the second large type. In the school it is represented by the subjects of manual training and the fine arts.

In the work of making over the world after the fashion of his heart's desire a child soon faces his own impotency. A child like a man may wish to hold a fleeting picture or the evanescent hues of a sundown. He may wish to change the sky line to the fashion of his own interpretation. But the untold forces of nature are mightier than he; the round of days with its fleeting beauties goes on and the mountains hold their rigid silhouettes against the sky. Man can little change them. But the idealistic nature of man must have its way and so he represents nature to himself in line and color. Out of it come the arts of drawing and painting. This is representative expression.

All that man has done in the preceding types of expression is to tell of some concrete thing, to indicate a special mood, to mold a special object, or to represent a particular picture. Man with his intellectual powers sees more than the concrete. Behind the world of particular things his interpretive mind has builded abstractions and generalizations, laws and gods, and so for these he has created a special language, the language not of sticks and stones and lines and colors, but the language of sounds and symbols. In the school on the lower planes, we call such expression language, and when it rises to the plane of fine arts, we speak of it as literature.

If the school is to train thoroly the expressive life so that man may be influential through all his powers in all his domains, the school must develop not only these four types of expressiveness but the various complexes of these which are everywhere recurrent in life. Spontaneous play with its free organic expression, constructive activities, music and the plastic arts, the formal expression of language, the executive control of his fellow-men must all have a place in the public school. They may not all be set down in the formal course of study, but in the inclusive round of school activity each will have its place. Now the special subject in hand, the place of the story and the poem, has direct reference to but one type of these, that is, to expression in language, and to but a single aspect of one form of language; that is, to the aesthetic side of oral language.

For the most part human experiences have the same meanings to different peoples the world over. This is due to the similar constitution of human beings. But the language which expresses the meaning of these experiences will differ with Frenchmen, Englishmen, or Germans. The training of linguistic expression then depends upon a clear and fixed association between the meaning of an experience and the language symbol which expresses it. For our American public schools it involves giving the child experiences, or taking

those which he already possesses and associating with them the conventional symbols which his race usage has approved.

The English language is, psychologically speaking, two languages, for there are two sets of symbols to be associated with every experience, one with sound symbols, the other with sight symbols. In any written language the symbol enters the eye and is expressed thru the fingers which write or set the types for the printed page. In any spoken language the symbol enters the ear and becomes expressed thru the vocal organs. The poem and the story as potent factors in oral reading and oral language concern the symbols understood by the ear and expressed thru the throat, tongue, lips, and other physical organs of speech.

In the foregoing analysis it has been suggested that there are two functions to oral language. One is the function of appreciation and the other is the function of expression. Appreciating is listening and understanding. Expression is thinking and speaking. Between these two functions there seems to be an established relationship. Our appreciations usually precede and envelop our expressiveness. Clear expression demands as a basis clear appreciation. Knowledge of a definite sort is always important to decisive and effective action. But in the learning stage experiment in expression may be the best method for gaining clear and effective knowledge. Our ability to appreciate, as it widens, enlarges our ability to express. And as expression grows our appreciation enlarges. The literary appreciation which comes from the use of the story and the poem is not alone significant in ministering to understanding and enjoyment—it has a direct influence upon the power of expression thru oral language.

If any given course of study in the subject of reading is carefully analyzed it will be noted that three problems appear to be dominant each at a different time. These problems are, (1) the mastery of mechanics in beginning reading; (2) the quick acquisition of thought in the silent reading of the later primary grades, and (3) the sensing of feeling in the interpretations of the literature of the grammar grade. This order in the treatment of our problems which is the common practice of our schools, while it represents fundamental types of difficulty, may not necessarily give the proper order and arrangement for attacking these difficulties.

While one problem may be dominant the subordinant problems should not be neglected if teaching is to be truly effective. From the very first mastery of mechanics reading should mean some appreciation of thought and literary feeling. The same treatment should be characteristic of oral language where from the start children should not only write words but their ideas and feelings about things. The story and the poem therefore will be a force in oral reading and in oral language not only in the more advanced stages of the subject, but from the very beginning.

Because the story and the poem deal with literary forms of language where the aesthetic elements of beauty are involved their main service in oral read-

ing and language is to minister to the cultivation of literary taste. Most of our higher-grade work in literature has been a failure because there have been no adequate foundations in the development of a taste for literary form and feeling in the lower grades. A literary taste for the complex types found in our complex classic literature is no more to be expected without an adequate preliminary training in the simple foundational elements of literature, than is a sudden understanding of complex reasonings in advanced arithmetic without a preliminary training in the simple stages of primary number.

Taste in oral reading and language will depend on the child's obtaining increased power to appreciate the various elements of beauty. In literature this beauty may be contributed from three sources—One source is the beauty of material. Some words are more beautiful intrinsically to the ear than other words. The mere sound of "harsh" is less pleasing than the sound of "gentleness." Gold is a more beautiful material than lead, silk than cotton. The beauty of form such as we find in rhyme, meter, etc., is another source. Certain vases are of more beautiful form than others. The third source is the beauty of meaning. The subject of one poem may revive associations of feeling far more delightful than certain others. In literature all three of these elements contribute to its beauty, and the training of children's taste in literature thru the story and the poem must take into account the growing sensitiveness of the child to the beauty of sound, of form, and of meaning. The extent of a child's appreciation of these elements will necessarily depend upon his experience. It is the business of the teacher to give such stories and such poems as will be within the child's maturity and to add to his life such experiences as will make the appreciation of more difficult forms and meanings possible. Usually the teacher has committed two errors: (1) The classical stories and poems have been given to the child regardless of their inadaptability and the child's mastery has been merely mechanical and memoriter. (2) Or, the teacher has pandered to the present power of the child and provided no new experiences which creates growth in taste so that more difficult and more beautiful literary creations may ultimately come within his literary reach. The "Mother Goose" rhymes, which seem absurd to many human beings because of their lack of meaning in terms of common-sense, are dearly loved by children because of the appeal made by their sound and rhythm. The beginnings of two elements of beauty are present. While the beauty of meaning may to a considerable extent be absent, the "Mother Goose" rhymes may be most useful at the beginning of literary work for other elements contributed. Many classics may be loved by children for musical sound and pleasant form, while a considerable part of the beauty of their meaning may be quite lost. It is thus that many of us have learned a "memory gem" the full beauty and meaning of which came late in life.

The story and the poem purely because they are different literary forms will render a different service in that teaching which has as its object the cultivation of taste for beautiful things in language. The poem will be to children

more appealing for the beauty of its sound and form, and will therefore be memorized and repeated precisely as the master-mind created it. While the story, because its appeal is in its selected meaning and their ordered arrangement in plot and narrative, will scarcely ever be memorized verbatim, but will be learned from the standpoint of the development of its thoughts in their narrative order with little regard for the exact words which originally clothed the story. Here the child will repeat the essential charm of the story even though he may use his own language. It will be the same with other literary forms. The aesthetic qualities contributed by each will need to be studied and its use in teaching controlled by the essential qualities which it contributes. When we have made more conscious and studied use of literary forms in teaching, breaking away from the slavery of traditional treatment, the literary side of instruction in oral reading and oral language will find some new and more potent factors than it has ever known before.

II. STORY-TELLING AND THE POEM

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The consideration of the relation of story-telling to oral reading and oral language leads at once to the question of the relation which these bear to the educational process and this in turn looks forward to the educational aim.

What is education and what is its goal, may be answered in brief as "character building," with all that this implies, and the two great factors that life employs to this end are the individual experiences and activities, and the experiences of other people portrayed or communicated either by word of mouth or thru literature and other arts.

The great strides in progress made in the earlier civilization were due to many agencies, not the least important of which was story-telling. The recounting of heroic deeds in the *Sagas*, the explanation of natural forces and their manifestations in myths and the interpretations of life in the folklore and fables, told from generation to generation, constituted a traditional literature which, beginning in the most primitive and childish myth, advanced to the noble epic of the Greek.

These agencies of the past for the education of the race we now seek to revive. The youthful mind holds its view of the universe as a "vague, unorganized synthesis" of all the constantly inrushing sense preceptions, the unrelated concepts and impressions, immature opinions, judgments, and feelings—all the items and influences that have come into his experience and contribute to his mental and spiritual interpretation of the physical and psychical universe; and the educational process is a leading up to a final consciousness, thru the transmutation by the means of synthesis, analysis, and ultimately of resynthesis of this vague sense of the unity of all things into as clear and all-embracing a concept of the meaning of life and immortality as the human soul is capable of.

And as we ponder it, does it not seem clear what part the story and poem

play in this process? What interpretations of life, what self-revelations, what insights, what clarifications, what harmonizing influences, what unifying effects, what explanations in terms of the imagination are possible thru stories and poems which, if properly selected, have power to reveal the world to the child and the child to himself.

The range, adaptation, and selection of stories and poems for such use are themes, each important in itself and worthy of full consideration, which can be but briefly touched upon here.

Since it is thru stories and poems largely that, either by contrast or coincidence, our ideas of life are revealed to us, and our ideals created, a full range would require that every phase of life and all sorts and degrees of experience be touched upon, and the entire gamut of emotion sounded. In this wide range the variations and types are many and should include some of the rhymes and jingles, and cumulative-repetition stories of the nursery period; folklore stories, myths, fables, fairy tales, and fanciful stories of classic origin; stories of heroes and heroic deeds; ballads and some lyric poems and always and everywhere poems which convey exalted ideals or pictures of beauty and harmony. Every poem worthy a place in education, embodies and reveals some phase of eternal, universal experience which the human spirit recognizes as such and this leads on to self-revelation and self-expression of the highest type. There is too little appreciation of the fact that the poem is a form of art of greatest power to move the human heart, to enlighten the finite mind, to convey shades of thought and feeling which are inexpressible in prose, and to appeal to that prescience of immortality we must nurture all we can.

The array of types noted above is given in an unorganized way; a most careful gradation and arrangement is required to meet the different attitudes and needs of the progressive stages of psychic growth, but this adaptation is again a theme in itself.

Not less important than adaptation is the selection of stories within the range, for not all folklore, ancient tho it be, not all myths nor all classic tales are to be given the children. Perhaps I shall be deemed heretical by some, but I am sustained by high authority, when I make the statement that some of the most commonly accepted classical stories are unethical in influence and should be eliminated from the list. I do believe that strong, vigorous tales touching the heights and depths of human feeling and human experience should be given and that goody-goody tales are worse than none, vitiating standards or creating anæmic tastes; but deceit, trickery, and wanton lying and stealing rewarded by success is not an ideal of life and "luck" to put before children; there are hosts of other stories full of life and action and near to childish hearts to substitute for such as these.

I have failed of my endeavor if I have not demonstrated how deep lies the source of influence of the story and the poem upon the oral language and oral reading.

As for the practical results, the outward testimony of the value and the

indispensability of the story and poem as a part of the educative process, we have not far to seek.

We have seen how story and poem may touch the whole range of life—a magic touch at which thought and feeling spring to greet the pictured thought and feeling; experience matches experience and is illumined; words and expressions come into consciousness to clothe thought in speech and the language power expands.

The expansion in language which comes in this most vital way, is reinforced and made permanent thru the wonderful power of memory and imitation of children; the new language forms in which the stories are clothed thus becoming usually a part of their regular language stock. This effect is very easily discernible and I find it again and again in schools where the teacher is truly "a story-teller." This form of language development transcends in value that which comes thru conversations upon actual activities and experiences, valuable as these are for other purposes, because these being intelligible by the use of the more common words and forms, make less demand upon the language power and add comparatively little to the vocabulary, whereas the literature in which most stories are embodied supplies a higher type and wider scope of language as well as an enriched content to already familiar words.

One of the most subtle ways in which the story and poem influences the child and his self-expression in oral language and oral reading is thru the imagination, "the stuff that dreams are made of." But it is the dreamers of the world who feed the fires that supply the motive power of all progress, realistic as well as idealistic; Isaac Newton was a dreamer, and so was Gutenberg, and so were Pestalozzi and Froebel—these were dreamers that were also doers.

It is the imagination that transmutes knowledge into power and knits together the ideal and the real. It is this endowment of the human mind of which we educators take too little account. It is, or should be, stimulated by story-telling, that it may vitally and directly influence the oral reading and language. It is thru the exercise of the imagination that the child thinks the thought, thrills to the emotion, and lives the experience of the story, and it is the quality and degree of this response that makes the good or the poor reader.

In the oral reading or in the telling of a story, the child seeks to express this response not alone in words but by looks and gestures, by inflections and modulations of the voice; and here the dramatic instinct comes into play, another endowment which has been too much repressed by the school and by parental interference thru lack of knowledge and appreciation of it as a vital essence of expression.

In summing up the argument for story-telling as an educative factor, we find that it lends its aid in reflecting and interpreting life experiences, in inspiring and evolving thought, in quickening and fostering emotion, and that by reflexive action, it becomes an effective instrument in the development of language expression, thru accumulation of vocabulary, enrichment of content,

and increase in control and power of formulation, and, on the side of oral reading, it enhances appreciation, gives training in interpretation, and greatly stimulates and exercises all forms of expressive delivery.

But whatever may be said of the immense importance of these factors, there is always that one other factor without which we cannot reckon—the teacher; for after all, the effectiveness of any educational agency depends upon the teacher.

Is it reading or story-telling? Then the teacher must be a model reader or story-teller, with all that this implies of insight, of sympathy, of imagination, of dramatic control, of the power to judge and appreciate what is truly good in literature and above all she must have the skill of the raconteur.

I would have story-telling and the ability to read poetry a part of the theory and practice examination for teachers' certificates. Every teacher who has not had such special training should feel it her bounden duty to "go to school" and acquire this most difficult and delicate but most indispensable of arts. We may organize our forces and officer the educational ranks with great leaders, we may plan the campaign of education with highest skill, and yet all without avail unless the teacher is imbued with the professional spirit and realizes the heights and the possibilities of her vocation and aspires to be an artist.

As far back as 1835, Mazzini said:

> Science, the arts, and every form of human knowledge await the coming of one who shall link and unite them all in a single idea of civilization, and concentrate them all in one sole aim. They await his coming, and he is destined to appear.

While we all recognize that education as an art has been practiced in some guise since the dawn of civilization, and that the late past and present centuries have witnessed giant strides in the evolution of a science of education, we must admit that there still remains for the on-coming generation the formulation of a philosophy of education.

And I believe that the one whom we await, the one by whom shall be wrought out thru the actualities of experience this culminating triumph of civilization, is not a single individual, but that Messianic host—the corporate body of the teachers of the race. And with this interpretation of Mazzini's prophecy granted, our responsibility looms large and clear, for we, the teachers of today, are the teachers of the teachers of tomorrow.

III. DRAMATIZING

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As I entered I saw that the children were playing a story. In front of the schoolroom a dozen boys and girls were moving about. They had their elbows lifted from their sides, and some kept flapping them up and down, while others occasionally stretched their heads forward and hissed. One boy stood apart, with a pointer in his hand. In the rear of the room a lad sat on the floor reading. The play was Maximilian and the Goose Boy.

Soon Maximilian closed his book. He rose. He looked up thru the trees

and out over the meadows. He began a soliloquy. "This is too fine a day to read. I'd rather look at the trees," and he cast aside the book. "Oh, isn't the song of that bird pretty!" and he turned an attentive ear toward the imaginary bird. "What a beautiful view that is down the valley," and he gazed thru the window at a forest of smoke stacks. Then he was charmed with the beauty of the flowers, with the music of the brook, with the glory of the setting sun. This reminded him that he must hurry home.

As he neared the goose-boy he discovered that he had forgotten his volume. After showing the king how to herd geese, the lad hurried into the forest for the book. Then the geese woke up. They ran down the aisles, here, there, everywhere, the poor king utterly helpless. Then the contempt as the lad handed him the book: "Well, you may know enough to be king, but you certainly don't know enough to herd geese!"

Because of this little drama, how much better those children understand the story, how much better they will read it, and how much more they will see of the beauty of nature when again in the woods! Because it accomplishes such results dramatizing is potent.

As dramatizing is a comparatively recent feature of schoolroom work this paper will be a record of my own observations and conclusions, combined with material from the reports of about thirty teachers, from Rhode Island to California.

My experiences with dramatizing date from the publication of Sara Cone Bryant's *How to Tell Stories to Children.* In it I found her suggestions concerning playing stories, and I felt that here was a plan that would add much to the child's interest in the story and in the schoolroom tasks. Being in normal work, I began to experiment in our training-rooms. I took the subject into senior and junior classes. I had young women dramatizing stories that they might understand the plan when they went to the practice rooms or into active teaching. Surprising as it may seem, seniors took scarcely less interest in playing a story than did primary tots. They enjoyed it; they came from it with freshened interest and increased energy. These results, seen not only with children, but also among girls far beyond the age where "play" would be supposed to have value, convinced me that this was a possible factor in teaching which was indeed powerful.

But why should not dramatizing be a potent factor in education? Children have an imagination far more vivid than have youths or adults. Left to themselves, unhampered by teachers and curriculum, children unconsciously become actors of power and dramatists of real human interest.

To illustrate: A few days ago I attended the out-of-door flag-day celebration of a two-room rural school. The program had been left to a committee of five girls. They had of course the conventional recitations and songs, a violin solo, choruses, etc.

But finally came an announcement that caused an expectant rustle among the fifty or sixty children and the few visitors sitting on the sloping hillside.

Charades were announced, and we were to "guess." They were not charades, however; they were effective little dramas, conceived entirely by the girls, without rehearsals, and so far as I could learn, without any schoolroom experience in dramatizing. The Betsy Ross home during the making of the first flag was shown, the conversation between General Washington and his aides, and the famous flag maker, being given with a vividness that caused silence even among the boys of the somewhat restless audience. But the chief work of art was yet to come. Our young friend Malcolm was seen mounting his pony. He and his pony are a unit. And when he came crashing thru the trees and in front of the audience crying "The British are coming! Be ready! Be ready!" he brought his audience to their feet. They cried out in their excitement, "Paul Revere! Paul Revere!" The dramatizing was done with vigor, and was received with a delight that does not pass. Will not Malcolm read of the famous ride of Paul Revere with a new power when next that poem is called for in the reading-class? And will not every boy and girl who saw the little play, have a deeper understanding of the real meaning of the original ride and read of it with added joy and with more dramatic skill?

Because it brings such results dramatizing is a potent factor in teaching oral reading and oral language. Children are eager, are hungry to comprehend life. It is this hunger which impels them to reproduce in play the life that they see about them. It is this hunger that makes them anxious, at a suggestion from the teacher, to play stories, poems, songs, and home or vacation incidents.

Children do not readily comprehend from the symbol, from the spoken word, or the printed page. It is easier for them, as it is for us, to understand after seeing. We read of a glacier all our days: we know what a glacier is after we walk across the Mer de Glace. We read Irving's charming descriptions of the Alhambra; we know the Alhambra after we have rambled thru it and become enamoured of its beauty and of the music of its waters and the color and witchery of its architecture. So children enjoy the fable of the fox and the grapes, but they know its meaning after they have seen it played; and that they get the very heart of the meaning is brought out by an Ohio teacher. After telling of the enjoyment her children had from dramatizing the fable, she writes: "In the afternoon I told them that the teachers were expecting to have a great meeting in California and I knew a number who would attend; but the weather would be very warm, and I really didn't want to go. One of my boys looked up and his bright eyes snapped as he timidly said, 'Sour grapes!' I said, 'Yes, Lawrence, I want to go, but my pocket-book is too nearly empty.' With this boy, Aesop has become splendidly concrete, all because he has seen the fable played.

Power to visualize, power to see with the imagination the whole action, power to live thru the experience—this is the power that makes good oral readers, as well as appreciators of literature. Power to see the unpainted pictures is an essential to the appreciation of poetry. And it is just this power to see

the picture, to live thru the experience, that is developed by dramatizing. In order to act the part of the boy and of the reapers and of the wolf in the well-known tale, the pupil must see the picture; he must be the foolish and later the frightened boy; he must become the alarmed and at last the impatient reapers. Every time he thus enacts one of these parts he is developing his ability to see more clearly the pictures, to appreciate more keenly the experiences, to feel more truly the emotions, in what he will read in the future. And as he develops this power, he gains in ability to read with interest and expression.

In another way also dramatizing is a potent factor in teaching oral reading. It makes pupils forget themselves. We have all seen diffident, retiring children who really suffered when called upon to read. Such children watch the playing of stories with delight, and before they realize it they are taking the less important parts themselves, and thus gradually they lose something of the self-consciousness which is so great a hindrance to their progress. This result is no less marked and is even more important in many pupils who are naturally dull. Their enthusiasm becomes aroused, and soon they are striving with a diligence that is surprising. They have attained a purpose, a desire to take part in the theatricals of the schoolroom. The result it that the smouldering spark kindles into a tiny flame, and the reading ability gradually begins to develop. This power to banish diffidence from the nervously self-conscious and to arouse interest in the dull and unready, in not a few cases, seems to me enough in itself to recommend dramatizing to every teacher.

In teaching oral language dramatizing is no less potent a factor. Anything that makes the mental image more distinct will help expression in words, both oral and written; for clear thinking results in clear talking and writing. Every child has a fund of knowledge for language work that is literally inexhaustible. It is impossible for any child ever to tell of all the things he has seen and taken part in. With this fact I feel that many teachers and writers are not sufficiently familiar. They are ever striving to give the child material for expression; for example, they give him stories and poems to reproduce. The reproduction of poems in prose is to me some thing pedagogically criminal, while the reproduction of stories, in writing, is scarcely less to be condemned when carried to the extent of practically excluding all other kinds of composition, as is all but true in several of the courses in language work that are widely followed. Children do not need to be given material for language work; they need merely to have their attention called to the material with which their memories are full—material which is ever ready for instant use if only touched by the magic of the teacher's suggestion.

Dramatizing makes clear and exact the images of the literature involved. In making them clear it must appeal to the experiences of the child. In thus appealing to his life, it serves the double purpose of making his thinking about literature more vital, and at the same time of making his memories of his own experiences more tangible. This is illustrated by the boy's unexpected exclamation of "Sour grapes!" when the teacher said she thought she did not care

to take the long, hot ride from Ohio to Los Angeles. He made the remark because his thinking had been vitalized by the drama.

Thinking concretely about a story which has been acted will enable the pupil to read that story with a new appreciation and an unexpected power of dramatic expression; it will also enable him to tell the story more effectively because in his imagination he has lived thru the experience. Further, it will enable him to reproduce it in writing, if this is asked, with added skill; but better than all this it will add to his power to tell of his own experiences, as it will make him see a clear relation between those experiences and the literary experiences which he and his classmates have put on the stage. With a little preparatory thinking, teachers will readily throw out the suggestions necessary to make every pupil discover in his life something which is allied to any schoolroom drama and of which he will tell with delight.

Every teacher from whom I heard concerning this subject emphasizes the new power for reading and for oral composition which is developed by dramatizing.

Many other desirable results are claimed for dramatizing. It helps pupils socially, by adding to the ease of their indoor associations. Many claim that it helps to teach correct form. It opens and strengthens the speaking voice. It improves conduct in the schoolroom. It adds interest and spontaneity to all school work. It increases the love for good literature, by making pupils understand it and by making them see that in literature there is an element closely allied to life. Many insist that this is the most important of the results. It helps morally. It brings teacher and pupils into a new relation, causing the teacher to become really acquainted with the pupil, and enabling the pupil to come into something like a living touch with the teacher. Beside all this it gives the pupils pleasure, and personally I consider this the greatest good that comes from dramatizing. There is little enough legitimate pleasure in life and in school, and anything that adds to the amount, should be welcomed. And pupils do enjoy dramatizing. They find it a source of keenest delight. The education that brings genuine joy along with careful and exact training is better than the kind that omits the joy.

In many schools dramatizing has been confined to the pupils of the first two or three years. Already some teachers are finding that the work almost introduces itself in the more advanced years of the grades, and not a few schools are doing something in impromptu dramatizing even in the eighth year, while in others formal dramatizing is making for itself a place. Personally I am not greatly in favor of formal dramatic work, even in high schools, if carried to any extent. It lacks many of the advantages of the impromptu work, and I fear that it has to commend it but little in comparison with the time it requires. But I do favor the extempore dramatizing of stories and other literature.

In the early years, the dramatizing of simple action stories and fables is appropriate, with the occupations of the home and country, such as bread-making, horse-shoeing, playing house, fishing, sailing, etc. Later come the

more complex fairy tales, household tales, and myths. I consider the dramatizing of myths to be the best possible method of making them part of the real life of the child. To be Ulysses tied to the mast or boring out the eye of Polyphemus is to know forever the story of the Siren and of the Cyclops. To have opened the lid of that wonderful box of Pandora or to have glanced back over the shoulder at the heavenly beauty of Eurydice is far better than merely to have read the stories. Under proper guidance, I believe that dramatizing will make the glorious poetic visions of the ancients, as we have them in the myths, a stock of common knowledge for all children to a degree possible in no other manner.

Still later many of the choicest fruits of literature will become thrice real for grammar-school pupils by being acted by them. To be the village favorite and to rise from a twenty-year sleep; to throw a pumpkin at the ungainly schoolmaster; to be locked in the church while the women and children are placed on the English vessels; to draw the sword from the great stone when all others have failed; to be saved by the Indian maiden just as death hovers near; to live these experiences in the schoolroom drama is to have a new outlook on the beauties of literature and history, is to find new life and new meaning in them.

Scenic accessories are only such as the schoolroom affords. The cloakroom, especially in winter, proves a wonderful costumer's shop. Primary pupils have the imagination to make very little into the living reality; older children especially when they have drifted from the fairy realms, may need more scenic help.

On the daily program a special minute for dramatizing tends too much to formality. It is better introduced when the story or reading-lesson or language work or history affords the right sort of action, and the mental condition of the pupil seems to demand relaxation. Some schools make dramatizing the regular occupation for the recess hour when bad weather forbids out-of-door play. The time will be found for it by the teacher who once tries it, for the work is its own best champion. Once introduced, I doubt whether the pupils of any school will let it drop.

In many stories the whole schoolroom becomes the stage, while others demand but a small portion. More and more I believe the work will be taken to the schoolyard, and thus will become one of the favorite childhood games.

One phase of dramatizing seems to have been all but neglected. I refer to its use in primary Sunday-school work. The modern drama had its origin in the church. As the adult of three and a half centuries ago needed something concrete to make him realize the meaning of the Bible stories, so today the child needs similar help.

I know of a single Sunday school in which it has been tried. There the success has been phenomenal. Sunday has interest for those children. On that day they live the wonderful biblical narratives in a way which gives new power to the lesson.

My question concerning the drama in the Sunday-school was ignored except by two teachers. One had seen it tried with great success. The other was sure it should not be tried, as it would detract from the devotional spirit of the lesson. Personally I am quite willing to have the devotional spirit of most primary Sunday schools disturbed, if something can be introduced of sufficient interest to keep small boys from horse play and of sufficient power to make them understand and remember the heart of the day's lesson.

To sum up, dramatizing is a potent factor in teaching oral reading and oral language because it makes the child understand literature, because it makes him love literature, because it makes him self-reliant, and because it makes him see that there is a vital relation between a story and the life he is living today.

Of its other important results especially to be commended is the bubbling delight it affords children. It will probably win its way thru all the grades, being of particular value in making the old myths and the literary classics vibrant with interest. Little costuming should be attempted, and its hour should be the psychologic moment rather than a regular time on the program. It may become one of childhood's favorite outdoor games, and it seems potent as a help to concreteness and interest in primary Sunday-school work.

IV. EXPRESSION BY THE HAND

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The school is life as well as a training for life. All movement toward self-realization is at first vague, crude, and indefinite. The all-wise Creator decrees it should be thus. Man in his systems of science, philosophy, art, and business must ever move from the vague, crude, and indefinite to the clear, the finished, and the comprehended. The movement is natural and the only possible way to freedom of action, mental or physical, lies in this direction.

The utility of expression by the hand is no exception to the principle stated. Some have thought of its coming thru music, some thru drawing, some thru manual arts, some thru domestic science, or domestic arts, and others thru artisan work in wood, iron, clay, leather, or other kinds of skilled labor. All are right in part, yet expression by the hand means more than deftness in any line of human effort. It is the soul expressing itself, in doing what the mind has imagined, conceived, or constructed. It is a test of the fulness of the executive agencies of stimulation, guidance, and control. It is a high form of reaction by which the free play of motor activity reinforces the development of mental images or ideals. It is the guided expression of motor impulses which stimulates the senses to do their work, a lack of which would inhibit mental growth by letting the motor impulses go out toward wrong or trivial ends.

A definition of expression by the hand should harmonize with the latest findings of science. It is now held by investigators of the localization of brain functions that manual expression enriches the centers in front of the fissure of

Rolando and makes brain activity more easy and vigorous in other directions. It is known beyond any reasonable doubt that brain activity and brain efficiency move together; that the enrichment of one area by use makes growth and development more certain and more easy in other areas; and that well-developed lobes in front of the fissure of Rolando were characteristic of brains of some great men who gave to the world thought expressions thru the hand in one or more of its manifold modes of self-revelation.

The mind works with images. There ought to be a close relation between the motives for expression and the images of the needs of the home and of the larger social units with which pupils of different sections are familiar. The images that form the most valuable contents of children's minds are those that appeal to individual and social necessities which they can understand and appreciate. A scientific application of expression by the hand would hardly warrant children's making wooden nutmegs, since the national pure food laws prevent their attempted export sale as food. The ethical end of effort and the idea of practical utility come together at many points; and true educational guidance makes all expression one's best and therefore in some degree ethical.

I have just come from Mississippi where for two weeks I assisted in the work of the Institute Conductors' Meeting at Starkville. I had there an opportunity to see many illustrations of the attractions of properly guided expression by the hand in the summer school at the Agricultural and Mechanical College. The most popular courses offered were those that allowed the hand to express the ideas gained by full and complete use of the motor activities. One crowded course was given by Superintendent E. L. Hughes, of Greenville, S. C. At an expense of less than two dollars for all the material used, the teachers learned how to construct a twenty-four-inch globe which has all the illustrative value of one that would cost twenty dollars on the market. The construction of the globe, the necessary study of the problems of latitude and longitude, the work with Diamond Dye colors to produce artistic and graphic pictures of land, water, elevation, etc., and the idea of making an irresistible appeal to boys and girls, who in the past have had so much trouble in seeing with the mind's eye the world in miniature, led a large and enthusiastic group of men and women, many of whom had college degrees, into doing what would equip them to direct scientifically the steps of pupils to an attractive realization of many geographical notions.

An interesting experiment, showing the high appreciation placed upon expression by the hand by people who value doing for art's sake under the expert guidance of great teachers, was tried in the Wisconsin State Normal School at Superior while I was the president of that institution. Courses in domestic science and handwork, or domestic art, were installed; and students whose programs would permit it were allowed to take the work with no view to credit toward graduation. The movement was a marked success from its inception. A waiting-list from which students were admitted to the classes was necessary. The further fact that the interest grew from year to year

shows that the work has intrinsic value, a value that makes its appeal from the side of science, as well as from art.

In the modern interpretation of expression by the hand science guides and precedes art. Science orders the doing and art, expressed, reveals and reinforces the mind's perceptions, images, and relations. The educator, having reached large and clear views of the meaning of things he teaches, causes art to follow scientific knowledge. The wise superintendent requires general culture, specific training in the science and the art of teaching, and a comprehensive and guided education in the technical work to be done of all who are to assume leadership in expression by the hand.

In every system of schools there are problems peculiar to the locality. In a large measure the scope of the work in all phases of the educational scheme should aim to relate the life of the school with the larger life outside.

Drawing, painting, paper-folding, weaving, basketry, clay-modeling, cardboard construction, book-binding, mechanical drawing, woodwork, ironwork, cooking, and sewing are the principal features of the branches that require an intelligent application of the motor activity.

In some places the exercises have been arranged to give exact sequence to them; and to exalt the system rather than to lift up the children, all pupils must "get into the grind" and do the same work in the same way at the same time. Such a plan is systematic, but it is so rigidly formal that it leaves no opportunity for initiative and original thought on the part of the individual child. In other cities we find a jumble of exercises not well interrelated, each one being an isolated item bearing very little upon other units of the course. This is an aimless waste of time and energy, entirely out of harmony with the spirit of scientific teaching. All the forces and considerations that necessarily enter into the success or failure of any line of effort should be taken into consideration. Nothing should be done by guess. Everything should move towards a definite and understood end. To illustrate, girls who study cooking need instruction in the chemistry of food, in food values, in providing for balanced rations, in economy of materials, in cleanliness, in sterilization, in care of utensils, and in other things the home-maker should know and do, or direct.

There are many who, having an empirical view of expression by hand, make a great outcry against the crowded course of instruction and object to motor studies and call them fads. I quite agree with Superintendent L. D. Harvey of Wisconsin in saying that we teach too many details in subjects not worth teaching and in so doing waste the time and energies of pupils; that when books fail, industrial training, which calls forth a high order of mental activity, is a time-saver; and that the mental power gained by contact with things gives a capacity for mastery which holds the pupils in school and thus brings them under the influence of educational agencies.

Gradually but surely the American people are reaching an advanced conception of the utility of motor expression as an effective and necessary element in public education. The science of teaching, year by year, brings closer

together the vital factors of stimulation, guidance, and control to the end that the children and the youth may grow to be able and disposed to lead happy, healthy, and morally worthy active lives. As history advances, more and more the citizens of this great country of ours realize that for every impression there must be adequate expression; that motor activity guided by trained intelligence is a powerful instrument for intellectual and moral advancement; that character is measured by the habitual reactions of our daily lives; and that the All Wise in his Book anticipated our reaching a new interpretation of the injunction—"Whatsoever thy hand findeth to do, do it with thy might."

DISCUSSION

JOHN S. WELCH, supervisor of grammar grades, Salt Lake City, Utah.—The mind has many languages, many modes of expression. Now it speaks thru stone or bronze; now thru the many-colored canvas; now thru fragile clay or massive steel; now thru gigantic industrial and commercial enterprises; now thru institutions for intellectual and spiritual uplift and growth. In the discussion this larger conception of language may legitimately enter into the trend of thought, for, back of all the diversity of expression as effect, there may be unity and oneness of cause.

Anything that tends to focus the mind on a central point about which ideas may group themselves is a factor which determines clearness of language and forcefulness of expression. Thoughts seek to embody themselves in fitting form. Slovenliness of language and expression is due to slovenly thinking; to a lack of worthy ideas to be expressed worthily.

The discussion will be an attempt to estimate the points advocated in the papers as means for causing fit ideas to be expressed fittingly.

Expression by hand.—We will all indorse the oft-repeated statement of Dr. G. Stanley Hall that manual labor builds brain, if the statement refers to the work of the muscle as it becomes an agent for transforming the thought of the brain to the external object that gives it sensuous being, but we will scarcely indorse the implied suggestion that any form or phase of muscular labor builds brain. We can believe that the brain of a Michael Angelo was strengthened and enlarged as acting thru his muscle it wrought the form of his mighty Moses in the unyielding stone, but we are loath to believe that the brain of the hod-carrier, the ditch-digger, and the plowman are strengthened and enlarged by the action of muscle as they follow the dull routine of the occupations into which circumstances have thrown them. So in school, the child builds brain as the brain holds the idea which is given objective being thru the action of mind and muscle, but we doubt whether the brain is either strengthened or enlarged as he constructs the formal object from dictation, suggestion, or imitation of the teacher. That manual training may build brain is true, but that it all too frequently does not is also true.

Because of its possibilities, I wish to re-emphasize all that Superintendent McNeill so ably has said of the right of manual training in all of its manifold phases to a place side by side with the other studies which have found an abiding-place in the work of the school. The delay in giving it this recognition is due to the fact that there are those classified as leaders of educative thought who still believe that the subject is the end, the child the means of fostering and preserving it; who still believe, or seem to believe, that all children need the same thing at the same time and in equal amounts. When all can realize that the child is the end; that books at best, however important their message, merely represent what others have thought and said and done, that the child will come to his own in the best sense of the term when he feels and thinks and does in terms of his own initiative and responsibility; when the construction, in whatever form or manner it reveals itself, is the

result of creative effort, manual training will receive full recognition in terms of what the school ought to do, must do, will do as determined by a well-ordered course of study.

The final value of the work of the hand as a factor in thinking and expressing will be determined by whether the leaders are artists or artisans in the work; by whether the desired end is the finished product in terms of the object constructed, or whether it is the child's ability to see, to relate, to execute, to go from better to best in high thinking, in worthy achievement; by whether the child seeks to realize his own best possibilities and to give himself as the finished product thru the use of brain and muscle.

Dramatizing.—Clearness, conciseness, definiteness of language, force and power of expression, are dependent upon the vividness of imagination and dramatization is a forceful factor in training and developing the imagination. This training and development is vitally essential as the imagination is a mighty factor in social, intellectual, and spiritual life, but we must not fail to discriminate sharply between the fancy and the imagination. None will question that in the main children are more fanciful than adults, tho there may be grave doubts as to their being more imaginative. We have but to recall the facts and forces of modern complex life; the gigantic sky-scrapers, towering like huge exclamation points done in stone and steel; the great corporate and municipal enterprises; the great inventions and discoveries and all the appliances and appurtenances of modern life to realize the power of the imagination in the affairs of men. Surely the imagination of the adult is not a negligible quantity. Because the imagination plays so important a part in the affairs of men there is full justification for using any and every legitimate means for its development in the schoolroom.

We may admit all that is claimed for dramatization as an aid to the expression of the constructions of the imaginations, yet we must not lose sight of the fact that all objective representation is on a sensuous basis and the highest flights in the possibilities of thought and expression have not been reached until, above the sensuous, the spiritual construction has been attained. Every individual defines its own limits. The beginning of the use of dramatization must also be the beginning of its disuse.

The great dramas of Shakspere are a mighty force and power, for despite the glitter and trappings of the stage, the pomp and splendor of costume, a thrill of real spiritual life is felt in and thru them all. It is possible to so read these dramas that only the external form will be seen and felt, hence an appreciation of Shakspere by a Tolstoi; but it is also possible to so read a play of Shakspere that no outer presentation plus all the panoply of the painted stage can equal the construction which the reader has made, hence the disappointment in witnessing the rendering of Hamlet by a Mansfield or an Irving.

Thru the development of the imagination we must lead children to the conception of Mrs. Browning:

> The growing drama has outgrown such toys
> Of simulated stature, face and speech;
> It also, peradventure, may outgrow the simulation of the painted scene,
> Boards, actors, prompters, gaslight, and costume,
> And take for a worthier stage the soul itself,
> Its shifting fancies and celestial lights,
> With all the grand orchestral silences
> To keep the pauses of the rhythmic sounds.

Another phase of dramatization, vastly important, but often lost sight of, is the choice of material for dramatic purposes. Supervisors and teachers often become enthusiastic over the possibilities of the subject and literary selections are made not because of their intrinsic life and worth but because they admit of dramatization. There is a failure to keep in mind the fact that not what can be dramatized but what ought to be, what must be, is the determining factor in choosing material for this purpose. If any one believes that I am aiming at a man of straw, I respectfully refer him to the average book dealing with this subject and suggest that he travel about and witness some of the foolishness perpetrated in the name of dramatization.

If dramatization could be based more largely on the scenes and incidents of daily life idealized; if the purpose, motive, movement could be drawn from such instead of being based so largely on the expression of others, there would be a stronger stimulus for the imagination and less of a stimulus for the fancy.

I am in full accord with the speaker in the thought that the spirit of dramatization may well enter the Sunday school. If the Sunday school is to become organic with the life of the child; if it is to be really forceful, effective, inspiring, it must bring the spirit of Sunday to the spirit of the child instead of continuing to force the adult conception of Sunday and of religious influences upon the spirit of the child, regardless.

The story and the poem.—The story and the poem are vital factors in determining what the language and the expression will be. The quality of the thinking will determine the quality of the language and the quality of the expression will be determined by the intensity of the feeling. The child will feel and think and express in direct ratio to the intensity of the cause of his feeling and thinking and expressing.

The child learns language by hearing language long before he enters upon the formal study of language for its own sake. Indeed when one contemplates the rapidity with which a child acquires his vocabulary and masters its use before he begins his formal study and also contemplates his snail-like pace after he begins one feels justified in inferring that when he begins he quits!

The story and the poem owe their vitality to the fact that they couch themselves in more elegant diction than do the facts of ordinary conversation. In them the art of expression is at its best. Here the learner finds no weak modifiers, no slovenly verbs. All are clear, concise, definite, elegant. The learner who really lives in and loves the story and the poem is idealized by them. He lives intensely. His language becomes tense, terse, clear-cut, elegant. He unconsciously uses the fitting word and phrase to designate the situation in which he finds himself, thus the fitting word and phrase, the well-chosen modifier and forcible verb become part of the warp and woof of his speech.

However important they are as factors in the process, we must not lose sight of the fact that the story and the poem are expressions of ideas, the means by which objective reality is given to ideas. There is need for the teacher to look back of the expression to the idea which gave it birth and being. There is need to seek to know what gave rise to the story, the poem, the fact from which they took their tone, color, meaning. The child must be led from the expression of the ideas of others to the expression of the ideas of the world that around him lies.

In conclusion I cannot refrain from making a general statement in terms of the various phases of this most important subject. The value of any factor that makes for vigorous feeling, thinking, expressing, lies in the quality of the feeling and thinking, the value of the thing expressed. What does it avail any or all to have the power to think and feel and express unless the thinking is worthy, the expression commendable; unless the thought is noble, unless into the construction there enters something of permanent and intrinsic worth?

When the story, the poem, dramatization, handwork, and every phase and form of school life shall operate and co-operate to make children realize that beauty is more than ugliness; that goodness is more than evil; that truth is more than error; that right and justice are more than wrong and injustice, every child will come into possession of himself; he will square himself with truth, with goodness, with beauty, with right and justice, with high thinking all worthily expressed thru right living; then will all manners and means that make for thoughts to express and the expression of thoughts justify themselves; then will the work of the teacher take on new dignity and worth; then will school seek to find and to make the most of the individual instead of seeking to suppress the individual, to make him one with the crowd.

J. F. REIGART, Public School No. 2, New York City, gave an account of effective work in dramatizing in a foreign school on the East Side in New York City.

L. E. WOLFE, superintendent of schools, San Antonio, Texas—Mr. Suzzallo, Miss Davis, and Mr. Blaisdell, have, in their papers and discussions, given us a contribution of the highest value on teaching oral reading and language. But the practical question that will present itself to most of us is how shall our teachers be trained to do this work efficiently. Upon this point may I detail what we have done in San Antonio. For several years we have held a school of methods during the first two weeks in June. We have secured the best practical educators to be found in the country. Dr. Charles A. McMurry was with us two summers on the correlation of history and geography. Miss Georgia Alexander of Indianapolis gave us some excellent work in composition. Richard Wyche not only gave the teachers instruction in story-telling, but told stories in all our schools to the pupils.

It seems to me that there is great danger of loss of time in introducing new and improved things unless a systematic effort is made to prepare the teachers efficiently to handle the improved subject-matter and method. Certain principals have been selected to make a careful study of each branch for the respective grades in order that our teachers may get the best work in their monthly institutes and grade meetings.

In answer to a question, DR. SUZZALLO spoke upon the fairy story as giving play to the fancy which precedes the period of constructive imagination and as an antidote to pirate and Indian stories.

GEOGRAPHY IN THE LIFE OF THE PUPIL

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That our schools do not prepare those who attend them for the opportunities, the responsibilities, the problems of adult life is a statement frequently heard. If this charge be true, then our schools are failing to perform their essential function, for the great aim of education is to prepare for life in the highest sense. Its purpose is so to surround each child by the best influences and conditions, so to direct its physical, mental, and moral growth, that it shall, as a present and future member of society, live the highest life, of which it is capable.

No one will question the statement that pupils should study those phases of human knowledge and human activity which will, in later years, enable them to be of the greatest service to themselves and to humanity. In fact, it may be said that the public school has no right to teach anything else. That these subjects should be so presented as to enter into the life interests of the learners is evident. Neither of these conditions is fully realized in practice, and hence the schools are not doing their full duty in training pupils for their lifework.

Geography, as one of the fundamental subjects in the elementary school, should receive, as it has been receiving during recent years, the most careful consideration. Both subject-matter and methods of presentation are being examined in order to secure more valuable results.

Until quite recently a knowledge of geography was not regarded as an essential part of one's education. Indeed, it seems that it is not generally so regarded today, for our high-school and college graduates know much more of Latin, French, and German than of geography. For the former, the average citizen

has comparatively little use, while a knowledge of the latter is constantly demanded in conversation, reading, travel, and business.

The study of geography can and should make our pupils closer observers, clearer thinkers, better reasoners. It should furnish them with information which will be helpful in almost any occupation. It should make them broad and sympathetic in their views. It should remove superstition. It should make traveling, reading, and conversation more pleasurable and more profitable.

In spite of this, and in spite of the fact that geography treats of those things in which both children and adults are deeply interested, and with which they are vitally concerned, the subject is said to be poorly taught. It is said that as a rule it is dry and uninteresting to pupils. It is not long since Dr. Hall characterized it as the "sick man of the curriculum." That there is some force in these criticisms every teacher realizes. I wish to point out a few fundamental weaknesses in our work, and to suggest a few improvements.

The failure of geography to enter fully into the lives of the pupils in the elementary school is not a matter of failing to provide for instruction in the subject, but is rather a matter of unwise selection and presentation of subject-matter.

Altho geography has made a remarkable advance during the last two decades it is still too largely a memory subject. Mere exercise of the memory is not necessarily interesting or educative. Unless geography is training our pupils to put together the links in the chain of cause and consequence it is being poorly taught. More important than this is the fact that it is not developing the habit of reasoning without which our pupils will, as adults, be drifted by the currents of popular opinion, now this way and now that.

The great problem in geography is how to make the subject enter into the conscious experience of the child, for only as it is to him a living reality, as it interests him, appeals to him, and influences his life in ways which are to him apparent will he enter consciously and purposefully into its study. The subject must do more than offer information thru the medium of the printed page; it should encourage the pupil to experience geography, and to contribute these experiences. Such opportunity as geography offers for the exercise of the constructive faculty should be used to the fullest extent. This can be carried out in the making of maps, charts, sketches, graphs, and models of various kinds. Where these conditions are not realized the results must always be meager, superficial, unsatisfactory.

The textbook still holds, and must always hold, an important place in the study of geography. The weaknesses of the book are therefore likely to be reflected in the work of pupil and teacher.

Our geographies are too incomplete. The material is too fragmentary, too statistical. This is a necessary condition where the plan of treating all or a large part of the world in one book is followed. If each book dealt with the work of a single grade the topics taken up could be more fully and more

interestingly presented. This would also make possible a larger number of maps and illustrations.

In order to make good this deficiency in the text supplementary readers should be very freely used. These bring out the human side of geography, which always appeals to children. It is a mistake to use these books simply as readers. The topics should be fully discussed by the pupils and maps employed whenever they would be of service.

Under present conditions the questions in the text constitute an important factor in the work of the pupil. His preparation for the recitation is in large measure based upon these questions, and therefore very much depends upon their character. As a matter of fact the majority of the questions ignore the casual notion. Their study is dry and deadening to the pupil. In our very best texts about one-half of the questions tend to create thought.

Questions pertaining to position, dimensions, area, population are legitimate, and many such should be asked, but they should not dominate the work. The function of questioning is to develop thought, not simply to secure answers. We can increase the interest in and the value of the work by supplying questions of the right sort.

The following, which are simply suggestive, indicate how this might be applied to the British Isles:

Using your map, find the latitude of the British Isles. Compare this with the latitude of your state, and with that of Labrador. Using the scale, find the length and the average width of Great Britain. Compare with the dimensions of your state. What is the nature of the coast line? Is such a coast line an advantage or a disadvantage? Make a list of the seaports. Make a list of those on the Atlantic coast of the United States. Has the English Channel helped or hindered the development of the British Isles? Give reason for your answer. What part of the British Isles is best watered? Explain. If the mountains extended east and west how would they influence rainfall? Examine an isothermal chart of the British Isles and compare the temperatures with those in New England. Account for the difference. Is there snow in London during the winter? Do people sleigh-ride? Do they skate? Compare with winter conditions in Boston.

What part of England is best adapted to agriculture? Comparing the population with the area, do you think that England's agricultural products supply her demand? If not, where might she purchase wheat, flour, cotton, sugar, fruit, etc.?

Locate the coal and iron producing sections. Locate the manufacturing areas. How are the two related? What is the meaning of the expression, "Carrying coals to Newcastle?" What advantages has Great Britain for shipping her manufactured products? What articles have you seen that were made in the British Isles? Why do people come to America from the British Isles? Why do people go from the United States to that country?

These questions are by no means exhaustive. Similar lists pertaining to other areas can be worked up and placed upon the board to be used by the pupils during the periods devoted to the study of geography.

Special investigation, as well as the experience of the teacher, has shown that the geographical interests of children center in peoples, products, and industries. Hence work involving these topics should be made the basis of introductory geography, and should receive attention thruout the grades.

Our texts give very scanty attention to the industrial and social phases of geography as constituting the basis of the subject. One of the best devotes 107 pages to home geography and of this number the first 79 pages treat of rivers, plains, mountains, the ocean, the air, etc. The remaining 28 pages, or about 25 per cent. of the whole, deal with the human side. Another recent text devotes 45 pages to home geography, 17 of which, or about 40 per cent., treat of the industrial and the social. In other texts introductory geography is almost entirely physical and astronomical.

The child has a more active interest in a snow-white cotton field, in the picking and the ginning of the crop, in its transportation to the mills and its transformation into wearing-apparel, than he has in the conditions of soil, temperature, and moisture, which make the crop possible. Not only this but he sees a closer connection between the industrial and social conditions and himself, than he does between the physical and his individual life.

The story of the necessities of life runs back and forth on bands of steel or over ocean wave, connecting the most distant lands and peoples with the community, with the pupil himself. This is home geography in the largest sense, for the home cannot be understood unless its relation to remote areas is seen. The people of a community and of the world are held together by the chains of mutual industrial, and social interdependence, slowly forged thru centuries of development in the habits and demands of daily life.

This study of the industrial and social does not ignore the facts of surface, climate, and location. These are of necessity taken up and given more meaning than they would otherwise have.

Among the lessons taught by this phase of geography is the great truth that physical labor is absolutely necessary and honorable. If the pupil sits beside a cheery coal fire while the snow is drifting out of doors, it is because deep beneath the earth's surface men with hands and faces blackened by contact with coal, with bodies weary from labor, toil day after day altho constantly exposed to the most terrible dangers. This general truth of the necessity for co-operation and the dignity of labor is presented in different forms as each industry is studied.

While geography deals with the realities of life—human beings, streams, forests, mountains, mines—these are for the most part studied through the use of symbols. Here we have another reason for the difficulty experienced in placing geography among the life interests of the child. The great value of the excursion is now generally recognized, altho it is still much more largely a matter of theory than of practice. Nothing else can give such life and value to geography. With the great inspiring picture spread out before us; the wonderful works of nature, and the marvelous works of man, we ask the pupil to step in doors, and read about these things.

That practical difficulties confront us when we attempt to do field-work is well known, yet if all teachers, school authorities, and parents realized fully the importance of this method of study, these obstacles would, in large measure, be removed. The taking of an occasional half-day or entire day for excursions

should not be regarded as an interference with the regular work of the school. The time is not far distant when out-of-door work will occupy a prominent place in elementary instruction.

The excursion should by no means be limited to the observation and study of geographic forms and processes, but should include mills, factories, quarries, museums, and many other centers of human activity. The trips need not be and should not be expensive. If carefully planned and skillfully handled the danger attending them is not worth considering.

Pictures constitute a very valuable aid in the teaching of geography. Here again practice falls short of theory. Merely exhibiting the pictures is not enough, altho there is value in this. The teacher should ask questions concerning them so as to encourage close observation.

The modern stereoscopic views are an inspiration to pupils. While using them one can easily imagine that he is observing the actual objects which they represent. The stereopticon should find a much more general use in the elementary school. By means of the slides we may take our pupils on in-door excursions to all parts of the world.

Much material in the form of raw and finished products can be brought into the schoolroom. In studying other states and countries, pupils should be encouraged to bring to the school articles which came from those areas. The list of materials easily obtained is a long one. Thru the efforts of pupils and teacher a school museum of some considerable value can be worked up. The materials, in connection with pictures and descriptions written by the children, could be so arranged as to present a graphic history of some of the most important industries. When desired they could be so placed as to show their geographical distribution.

Travel is a most potent factor in vitalizing the work in geography. The knowledge and the inspiration obtained by every member of this association who has traveled across the continent to attend this convention can be used to great advantage for years to come. Pupils are always deeply interested in what the teacher has actually seen. In many schools there are pupils who have enjoyed the benefits of some travel. This contact with geography at first hand should be drawn upon to the fullest extent. As early in the year as possible the teacher should learn just what regions have been seen by pupils. This information can be tabulated and the topics assigned pupils at the proper times. In all cases where trips are being described the routes followed should be carefully traced upon a map before the class.

The exchange of letters by schools in different parts of the country while by no means new, should be much more generally practiced. If one letter a month were written by each grade thruout the year, pupils would be in possession of a very valuable picture of changing landscape, planting and harvesting of crops, weather conditions, migration of birds, blossoming of wild flowers. In addition there would be descriptions of the surface, natural resources, industries, and the daily lives of the people. If a different section were selected by each

grade in the school, and the practice kept up from year to year, it would add immensely to the pupils' knowledge of geography. Pictures accompanying such letters would be a very valuable feature. Several pupils should have a hand in the writing of each geography letter, thus multiplying the benefit received.

To summarize: Geography, while intimately connected with daily life, is not so vital a part of school life as it should be or can be made. Our texts, while steadily improving, are still too meager and statistical in character. A striking weakness is shown by the map questions which do not serve sufficiently to develop thought. The books should be more limited in scope, thus making it possible to treat given areas more interestingly and fully. The map questions should be supplemented by others tending to create more interest and greater mental activity.

Introductory geography should be based upon the industrial and social phases of the subject, as investigation has shown that the geographical interests of children are strong along this line. Such study connects geography directly and vitally with the actual daily life of each pupil, not only as applied to the home, but as applied to the world as well. More uses should be made of pictures, stereograms, and slides, as well as of such materials, raw and manufactured, as can be supplied by pupils and teacher. Every school should start a museum which will increase in size and usefulness with each succeeding year.

Such knowledge of areas beyond the immediate vicinity as has been acquired by teacher or pupils thru actual observation should be used to the fullest extent. The exchange of letters by schools in different parts of the country can be made a source of the greatest interest and profit.

In these ways geography can be made to enter more fully into the school life of the pupil, and to enlist his conscious and purposeful participation in its study. It will then be fulfilling its deeper function, the training for the larger experiences which follow those of school days.

DISCUSSION

A. L. Hamilton, superintendent of schools, Pasadena, Cal.—I regret to agree that geography does not hold as important a place in the life of a child as it should. This condition is more to be regretted when we consider the richness of this subject in material which touches life from so many directions. When we consider, however, the growth in interest in the study of physical geography in the high school, and its remarkable and rapid development as a subject of study we are led to the conclusion that there is a future for geography in the grades. I well remember my own experience, when as a boy I owned my first large geography. I opened it and the whole world seemed before me. I resolved to conquer it. I mastered long lists of questions, and I presume they did me good. I became acquainted with the maps, at any rate. The greatest revelation came to me, however, when on one summer afternoon, I walked along the flooded, muddy, country road, with my teacher. It was after one of those heavy eastern thunder showers, and the storm water was playing at its own sweet will with the yielding earth of the roadside. I saw there miniature valleys in actual process of formation, waterfalls eating their way back, creating grand cañons in depth reaching to my boyish shoulders, stream deltas as

complete as the ones on a larger scale which I have observed since that day. That was a memorable walk and impressed its lessons on my mind. It entered into my life.

Not long ago I had the pleasure of listening to a fifth-grade girl talk to her mates on her experiences in Japan where she had lived for some time. She had brought to the schoolroom many Japanese articles and her talk was interesting and instructive. It took hold of her schoolmates as some other method of presentation could not. Altho the mother was not present I suspect that she had been interested in the affair and had rendered valuable assistance.

This is an excellent subject thru which to keep in touch with the home. Our school-work ought to go into the home and be felt there. We should prize any sign of interest shown by parents in the work done, and seek in all ways to honor the parent by expressing our appreciation of all they do, rather than wound their feelings by criticism of methods used. Honor the parents. They are necessary in the work of putting into the life of the child the things taught.

Geography work, as also all other work, must be related to life and to the life of the child. The study of people, products, and industries will put the pupil in touch with the whole range of geography work. If we do not know anything until we have experienced it, some of our pupils will never know much unless we put some deeper thought into our methods of instruction. Such books as *How We Are Fed*, *Clothed*, *Sheltered*, enable the pupil to go on tours of inquiry from his own breakfast table and home.

In your teaching you aim always to climb to the high points and take a survey of the field and then are able to lead out into the details. You, for example, do not take for your topic "the cat," but "cat food," and from this familiar position you lead the pupil out into large areas of the cat field; so in the use of pictures in the teaching of geography, you select some point of vantage and so organize the picture material that the pupil shall get the large characteristics first, then work out the details. We do not use our pictures intelligently sometimes, that is to say, we allow the pupils to become confused over unclassified and miscellaneous collections. Allow me to illustrate how I think this should be done. A short time ago, in teaching a young men's Bible class the lesson on Christ's triumphal entry into Jerusalem, I used three stereopticon pictures to get our bearings; one taken from the Mount of Olives, looking to the eastward down upon the village of Bethany and on across the plains toward Jericho and the Jordan. It was all spread out before us. We could see for a portion of the way the rocky road skirting the hills along which Christ had just traveled. Then from another point on the same mountain we looked down its western slope across the valley of Kedron and upon the city of Jerusalem and the country beyond. The third picture was taken from a point south of Jerusalem looking up the valley of Kedron—the Mount of Olives on one side, the city of Jerusalem and country adjacent on the other. After such general features are fixed, the details may be intelligently worked out. So any section may be handled to the great advantage of the pupil. You should persuade your high-school people that they are sufficiently interested in the outcome of your work to allow that precious lantern to be loaned to you, if you are not fortunate enough to have one yourself, and with the proper appliances ready for it you should make it tell its stories as only a lantern can.

I agree that we attempt to do too much in each grade, but when that happy time shall come when there are no grades, requiring the pupils to be fitted to them, and when the work shall be arranged in courses which are consecutive from a beginning to an end, then the pupils will be given what they need and when they need it, and in quantity which may be assimilated. If pupils have a definite aim in their excursions and an interest in the things they are to find, which has been excited by careful classroom work done with the excursion in view, and if the instructor has before been over the ground and knows that the trip will not be fruitless, the tramp abroad will be about the most valuable exercise of the course.

A discussion has been going on for some time on what sort of matter is or is not per-

missible in presenting nature subjects, in which discussion even the president has taken part. I have been interested in reading what John Burroughs, also, has had to say about it. I think, as does he, that in the realm of science we ought to be very sure of the truth of the statements we make as facts. .

The children usually understand what is imaginative and what is presumed to be fact. When we travel with the pupil in company with some familiar desert plant out into its lonely habitat, we may paint about the facts with colors of the imagination as we will and the child will understand, we may read poems picturing death from thirst and make it all as vivid as seems best, but the statement of fact should be such that the child shall not be required later to correct its data and thus weaken its confidence in authorities. If we do not know the facts with reference to a given question then we ought to say so, and seek more light in that direction.

The children ought to be so taught that they may have a feeling that they are part of the universe in which they live, and as they look up into the skies at night they ought at least to be able to locate the north star, and understand somewhat the movements that are occurring, and be able to look familiarly upon some of the beauties there. The children should be able to get a grasp upon the great thoughts that come to every one of them, and to widen their horizon till they are able to take in the multitude of living things that they will find in this most interesting study.

ILLUSTRATIVE EXCURSIONS FOR FIELD SIGHT

HAROLD W. FAIRBANKS, U. S. GEOLOGICAL SURVEY, BERKELEY, CAL.

Experience has shown that in teaching the child we must lead it step by step from that which is known and has become a part of experience to that which is strange and unfamiliar. We cannot plunge it at once into that which is wholly unfamiliar and expect any real comprehension.

The object of field excursions in geography is twofold. On the one side the child becomes acquainted with the facts of his environment. On the other he acquires that necessary foundation thru actual contact with the geographical facts of his home region which will enable him to grasp intelligently similar phenomena in the world at large.

The home is a little world replete with materials for a practical concrete foundation in geography. These seem so simple, however, and so commonplace that we are apt to overlook their importance. Too often the pupil goes out into life without the faintest conception that the world of geography lies all about him. The geography of the textbooks seems far away and unreal and few of its disconnected facts laboriously committed to memory are retained in such form as to ever be of any value.

Observations in the home region should include a great number of facts which are not geographic but which properly belong under the head of nature-study.

Elementary geography, nature-study, and the beginnings of history as illustrated in the district open to excursions are for the pupil parts of one whole and might be termed "home lore." It is essential, however, that the teacher understand the bearings of these various factors, and, as the pupil advances, gradually differentiate them.

We may conveniently take up first in our discussion of field excursions the use of the home district as a basis for a real understanding of maps. Map-drawing as commonly practiced is little more than an exercise in the training of the eye and hand. Unless we begin by actually developing the meaning of the symbol from the real thing for which it stands the pupil will have had no experience to enable him to interpret the symbols or form mental images of the features of any remote region as expressed in the map of that region.

We must begin with a study of the features of the neighborhood and pass from these to their representation upon a model. The step from the features of the model, or from those of the actual landscape to their representation upon a plain surface then easily follows. The pupil now in looking at a map of the home district is able to form a mental image of the features for which the symbols stand. He is further prepared to see in maps of regions which he has never visited those things which the various lines and figures represent.

As a usual thing the variety of geographical features in any one neighborhood is not great. Excursions will bring to light many examples in miniature of the working of nature's forces in the shaping of the earth. The children in the Mississippi Valley can form little conception of a cañon by reading about it from a textbook, but when taken out into the field and shown the work of a torrential rivulet upon an unprotected bank, they can picture in their minds something of the nature of a real cañon.

It is utterly useless to study the work of the various forces shaping the earth and the origin and meaning of the various geographic features if the textbook is depended on entirely. Only in so far as this phase of geography is supplemented by actual observations out of doors is it of any value to the pupil. In a certain large city the pupils are given dictation lessons on the work of streams and asked to memorize it for examination without ever taking any out-door excursions altho the city is surrounded on all sides by the most interesting geographic features.

What realization can a pupil have of a delta who has never had his attention directed to one. In every locality delta plains and débris fans can be seen upon either a large or small scale, and also the influence which they exert upon the location of the homes of people and their occupations.

Civilized man has had a great and disastrous influence upon the surface of the earth. He has killed the wild animals, cut off the forests, and left the surface to be torn and washed away by torrential streams. It will do the pupil no good to know of these things and that they are wrong. He must get out into the fields and see what has taken place. Under the direction of a skillful teacher such object-lessons will never be forgotten, and the importance of conserving nature's gifts will not be a mere statement in a book without vitalizing force.

How the soil is formed from the rocks and how it is distributed over the surface can never be learned in-doors. The way in which soil and slope affect the occupations and distribution of people are facts open to observation in every district. The hills and valleys determine the position of homes, the

position and direction of roads and trails; the economic importance of streams, whether they flow quietly or possess rapids and waterfalls, can also be studied in excursions.

The various industries carried on in reach of the school offer much material. The study of such industries in themselves is not strictly geography, but when we take up a study of the conditions leading to their establishment where they are, the source of the materials with which they deal, and the reasons for the shipment of their products here and there we are dealing with geography.

The child who has actually observed the influence of a body of water upon the temperature and moisture of the air, influence of elevation on climate and production, and has noted the movements of the winds bringing fair and stormy weather, is prepared to grasp intelligently the facts concerning the distribution of the climatic features of the earth. He does not have to memorize the fact that the high plains east of the Rocky Mountains are valuable chiefly for stock-raising.

Many subjects which cannot be illustrated from excursions can be made much more real thru the use of pictures. Considering the abundance, variety, and cheapness of pictures at the present time there can be no excuse for their omission.

The matter of interest is of the greatest importance, and interest can be no more easily aroused and kept alive than by bringing the facts of geography into close touch with the interests of everyday life.

DISCUSSION

C. T. Wright, Redlands, California.—The teacher who has never taken a class afield usually dreads the ordeal. This dread has been variously ascribed to lack of special training, to the new conditions of the management of children in the field, or to want of time for the field lesson and its adequate preparation.

There is no doubt but that fieldwork with children offers problems that are real and even difficult, but none that are impossible of solution. In attacking the problem the teacher can get much aid from reading, but more from the field and the child himself. To know both field and child is necessary to the correct solution. Therefore the teacher must visit in advance the place where the lesson is to be given—often more than once. The lesson must be thoroly planned—even written out. A printed (mimeographed) sheet may be given to each pupil calling attention to particular things en route that are to be noted, drawn, mapped, or discussed.

The number of pupils taken on the excursion should be small. The out-of-door lesson should be such that the pupil will welcome its return, yet it should be borne in mind that the excursion is not a picnic.

The preliminary discussion in the classroom should form a basis for the field lesson, while the field lesson in turn will furnish material for many oral or written lessons after the return of the pupils. This material will serve in subjects other than geography, thus the excursion touches several subjects of study. Time is gained, not lost, and meanwhile there is secured that desideratum in all subjects, vivid ideas.

The presence of no particular land form or industry is necessary to a successful lesson afield. Even though the relief features of the neighborhood be limited to a barbed-wire fence, let the lesson be given on that! It may afford more than one good geography lesson. The plea is for a study at first hand. From the present and the concrete, one may pass to the remote and the abstract.

EMPHASIS OF COMMERCIAL AND INDUSTRIAL GEOGRAPHY

S. L. HEETER, SUPERINTENDENT OF SCHOOLS, ST. PAUL, MINN.

I desire to discuss the subject announced under two heads. First, the origin, scope, and significance of our "new geography;" second, the place the subject should hold in elementary school programs.

The history of geographic expansion follows the history of the race down thru the centuries in every effort to inhabit and subdue the earth. Once civilization was confined to the Roman Empire and the "circle of the lands." There was no geography in that day, especially no geography beyond the foothills of the Alps to the north, and the Afric sands to the south; beyond the rocks of Gibraltar to the west, and the watersheds of the Don and the shadows of the Caucasus to the east. Then, the Mediterranean with its circle of empires was the sum-total of the civilized world, and there could be no geography until Roman shackles had been burst, which had prevented geographic expansion; no geography until after a thousand years of mediaeval darkness, after the crumbling of feudalism, after the fanaticism of the Crusades, the opening of the monasteries, the fall of Constantinople, the spread of learning and culture.

I cannot follow the genesis of a world geography. It came with the Renaissance, the revival of learning, the discovery of America, the explorations in the New World, the voyages of Marco Polo, and the circumnavigation of the globe. It came during the late centuries with the populating of the entire earth, the breaking-down of Chinese walls, and the opening of dark continents.

But our new geography has its origin, not only in the migrations of the race; it finds its principles not only in the exploration and colonization of the different quarters of the globe; for back of man's search and struggle for a comfortable existence, back of all his migrations and settlements, we always find him face to face with the controlling influences of physical nature—climate, flora, fauna, and topography; and here is the suggestion of the very first aspect of our new geography.

As man has settled the earth, its valleys, hills, and plains, its deserts, mountains, mainlands, and islands, in his struggle for existence and victory, he has faced primeval forests, unconquered streams, undrained swamps, parched deserts, and unyielding plains. He has found a natural distribution of materials. The products and treasures of land and sea have been placed here and there by natural forces, and man's first call has been to search the earth for its stores. The flora of the earth remains even today more or less localized. Natural forces have always controlled the distribution of the banana lands, rice fields, orange orchards, cotton belts, lumber regions, cactus plains, and so on. So also, in the course of man's globe-trotting, he has found primitive fauna ever attached to a favorable environment, the fur-bearing animal in the colder regions, the cod on the Newfoundland banks, and the marsupials in Australia. He has learned that coral could not be fished up in the Arctics, nor the oyster in Hudson Bay. The bison once belonged to the plains, and

struggled even to extinction with the alkali water, the cacti, the cañons, coyotes, and cowboys of the American desert.

Here then, in the history and development of the human race, in its struggle for a world-wide existence, is the very first consideration, giving our new geography the scope and significance of a science.

But this is not all of our new geography. It is not all a study of original environments; it is not only a natural science; it comprehends more than "earth as the home of man," for man has not been content to remain subject to his surroundings. While climate and topography have operated singly and together in the distribution of life and both have played an important part, not only in the making of history, but in determining the customs and achievements of every people, yet man has not been a slave to geographical conditions. He has gone forth to modify, to rise above environment, to multiply, and to subdue the earth, and there is a human, as well as a natural, interest in all this new study.

'Tis true, man has populated the earth, the Northland and the Southland, from Scandinavia to Siberia, from Abyssinia to the islands of the sea, but wherever he has gone, he has clad himself to meet the conditions of climate; he has built to withstand the tests of seasons; he has labored for wholesome food; and has forced the earth to yield up more than her native stores. The very form and character of his effort, as revealed by the apparatus in organization of industry, show not only the process of adjustment to native environment, but a determination and a success in rising above all natural limitations. Thus the Esquimaux labors and invents, but not the same as the nomad of the desert, the planter of the flood-plain, the ranchman of the foot-hills, or the lumberman of the camps. The great double question, then, confronting the student of geography today, is, first, what physical and climatic conditions have directly influenced the different peoples of the earth, their modes of life, and their activities? Second, what have these people in turn done reacting against their geographic environment?

Our new and modern geography thus furnished two sets of causal forces, one springing from physical nature and the other from man and his enterprise. It is man and nature, rather man in nature, not man alone. Here is a geography which becomes the foundation for systematic study of the natural and descriptive sciences on the one hand, and a man's industrial, economic, and commercial development on the other.

And just a step farther. Under the stimulus of man's inventive genius, along with the evolution of modern science and inventions, intercommunication has been made perfect, barriers have been broken down, regions once isolated have been connected, continents have been linked, the whole earth has become one vast neighborhood, and every man a neighbor. Here we see the interdependence of men, the East upon the West, the West upon the East, the North upon the South, and Europe upon America. Adverse conditions in one section affect all other sections. Civilized man everywhere is dependent

upon all regions of the earth to contribute to his food, shelter, clothing, and culture; and a large part of civilized effort has been directed toward perfecting modes of travel, commerce, and intercommunication, until today streams of trade have opened into world-wide currents.

Follow the world's currents of trade and you have an index to man's varied fortune in reducing nature, or rather in learning natural laws and in conforming his life to them. Originally, he projected his routes along ready-made ways—rivers, lakes, mediterraneans, and oceans, but later he modified topography, overcame natural impediments, changed the direction of rivers, built roads of steel and rock, bridged streams, tunneled mountains, cabled the seas, wired hills and valleys, and severed continents by artificial waterways. Here emerges a new geography, a commercial geography, whose basic principles lie away back in the original conditions of physical nature and the interplay of natural forces, in the relations of the different geographic divisions of the earth, and finally, in the varied industries of men, in the policies and arts of modern producers, consumers, and exchangers.

This brings us to a conception of our new geography, triple in its aspect, physical, industrial or social, and commercial, and no school is justified in giving this subject any large place in the curriculum today unless it be conceived as a complex and composite subject closely related to, in fact underlying, almost all other sciences. Once there was no geography of the Rocky Mountains, for example, except a study of their location and elevation and their representation on colored maps. Today the student studies its Yellowstone, its Salt Lake, its palisades, parks, and cañons, but he soon runs aground in the legitimate fields of geography, and finds himself encroaching upon the territory of geology or botany, zoölogy, chemistry, physics, or mineralogy. Even in an elementary discussion of the influences of these mountains upon the climate of the continent, many facts must go unexplained without the principles of natural philosophy. That geography of the Rocky Mountains is incomplete which does not include a typical and detailed study of its industries, of its mining, smelting, lumbering, herding, and its method of agriculture and irrigation. A study of the various peoples of the mountains may take the direction of sociology, economics, ethnology, or government. The geography of the Rocky Mountains thus approached, and only thus, may give a true insight into, and an ability to interpret, that part of the world.

So it is in one form or another in the study of Egypt or Brazil or Alaska or Japan; so with every other region or nationality. There is no other geography worth while. It has become a mighty subject, intensely practical in our day, for the society in which the child is to move is so complex and varied in organization as to make a full treatment of this comprehensive subject-matter seem almost imperative.

And this is the point to which we have come. If this is the scope and significance of only one of our subjects now taught in the elementary schools, what emphasis should be given it? The old geography was burdened by its

own shortcomings and so narrow was the conception of its teachers that it began and ended in drill on isolated facts, but the new geography has become after a process of so-called enrichment, so comprehensive, so far reaching in its scope, that its outlines almost bewilder, if not overwhelm, the untrained teacher.

And this single consideration remains: Where in the process of education or training is this new geography available? Can the elementary school profit by it? My conviction is, first, that colleges and normal schools must give teachers in America even today more training in this larger aspect of geography. A more thoro preparation of teachers and a more valuable equipment should be the first result of the present awakening to the facts and merits of our "new science."

There are still too many teachers, even normal trained, after a decade of enrichment of elementary subjects, that are bookish, formal, cold, and unsympathetic. The teacher of geography today should be armed with principles of wider bearing and interest in her endeavor to pilot children thru what has long been regarded by many as an arid and unteachable maze of unrelated facts. If our present geographical instruction can be freed from tradition and conservatism, if it can be brought abreast of contemporary scholarship, it will furnish a foundation for all other sciences and will become a unique and indispensable element in elementary education.

But what of the child? Can the boy and girl in the grades profit by such an extended course? We would welcome in the grades any geography which would reduce brute memorizing by focusing facts, so far as possible and practicable, about nuclei of more general principles. Our new science has broken away from the dry bones of former, lifeless matter and has brought before the teacher broad fields of materials—materials not found on maps, in textbooks, not even inside the schoolroom. The true course of study in geography today is in the great outside world of fact and interest concerning man and nature, and the best teacher must select and organize her materials from the complexity and phenomena of life about her, from the sky over her head, from the air she breathes, the ground on which she walks, the people with whom she talks, and the books she reads. That teacher is most successful, who, systematically and sympathetically, reaches into the outside world of life, gathers up its related interests, and focuses them upon the growing child.

The time has come, however, when we should be careful. The course of study in geography or in any other thing is not the final desideratum. The time has come when for the good of our schools, we should go more slowly if not call a halt on enrichment; when we should realize as school people that geographic content has been sufficiently outlined; that a comprehensive geography as a science is being forced upon us by the very organizations of modern society. We must take heed now, lest our attention to the content of study abstracted from the experiences and ability of the child may return us to the time when the branches taught seemed to be the center and the end of education.

We hear the constant cry against the multiplicity of subjects that have found their way into our schools. The elementary program has been referred to as a kind of grand medley, a heterogeneous mixture, a kind of stew, a hodge-podge of many ingredients, and yet, here is not where the schools break down. Let us be careful. The problem before the schools is not that of eliminating certain subjects bodily, but that of fixing upon essentials in our enlarged courses. It is no longer a problem of enrichment, but now, one of arriving at fundamentals in the subjects taught.

I cannot help feeling that too many children are leaving our grade and high schools every year dazed and bewildered by a superficial treatment of elaborate courses. Teachers have absolutely no time to stop for the sake of mastery and thoroness. In geography children are rushed thru the primary and intermediate grades, twice around the continents, in abstract discussions of cause and effect, thru a tangle of so-called rational study, while they should be doing observational work in home geography and nature-study. I wonder if there is a tendency now, after all our enrichment, to crowd back upon childish minds pure mathematics, institutional history and scientific geography beyond the experience and comprehension of grade children. We seem to be so concerned about the reasoning powers of children. In a nervous, restless, determined way we have enlarged and enriched our courses and outlined them for the teachers even to confusion and bewilderment. It is weak argument for us to say that it is all done for discipline's sake, and at the same time, graduate our children with blind staggers, with no power of concentration and no degree of thoroness.

It is not only in the grades but in the high school. I am sure there are too many science courses between the lids of the books and not enough applied science. Too many laboratories instead of offering an interesting workshop for boys in elementary experimentation, acquainting them with natural phenomena, are given up to abstract discussions of the law of Avogadro, ionic equilibrium, solution, tension, and so on. A high-school girl has no buisness working in historic geology and running about nights making a pretense at astronomical observations before she has an every-day practical acquaintance with physical, industrial, and commercial geography. Our free elective systems must not lose sight of prerequisites. Things on earth and near home should come first. A certain amount of arithmetic should come before algebra, spelling before, or at least along with, dramas and elocution, a legible handwriting before design in color, typewriting before stenography, home geography before geology and astronomy, English grammar before Spanish and Greek, physiology and domestic science before zoölogy.

It has lately been charged by that staunch German Professor of Harvard, that superficiality and inaccuracy are the curse of our American schools; that our children do not acquire habits of strict mental discipline from the first; that intellectual disorderliness prevails; that our students reach much and absorb immense quantities but do not master anything completely; learning is loose, inefficient, and time-wasting.

I propose to defend the American schools; I believe the spirit that prompts the American teacher and permeates the American schools is the best in the world, but at the same time, I cannot escape the conviction that the German professor has put his finger on the weakest spot in our educational system.

And now what is the remedy? It is suggested by the subject in hand. It comes with the answer, shall we give greater emphasis to commercial and industrial geography? Shall we give greater emphasis to our enriched and enlarged courses? I have followed the genesis of geography as a science. I have indicated the scope, significance, and importance of this subject in elementary education. I have pointed out the pedagogical possibilities of our new geography, and the fact that it has already relieved our schools of a diluted mush of unpractical pedantry, and yet I cannot urge greater emphasis of this subject without some consideration for the child. The great problem now before the teacher who would give greater emphasis to commercial and industrial geography or to any other subject is a problem of selection, elimination, adaptation, and presentation.

The solution comes with a course of study so organized as to afford practical basic training to every child, a broad basis of general culture and efficiency for every boy, however humble the home and however circumscribed the course of his destiny. There are certain phases of all school subjects that are essentially fundamental. We must agree upon these. Here is our business—appreciation of things essential and adaptable before emphasis. It may mean, in arithmetic, the elimination of complex fractions, bank discount, partial payments, compound proportion, foreign exchange, mensuration of trapezoids, trapeziums, cones, spheres, and pyramids, until all children alike have learned the multiplication table and have become accurate in fundamental operations. It may mean, in grammar, the abolition of guess-work in parsing and fine discriminations in sentence analysis until all grade children, even in the flat districts of our cities, are given a sure grounding in practical language-training. In writing, it may mean less wrangling over the uniform slant of letters, and more consideration for the development of an individual, intelligible hand on the part of each child. In drawing, it may mean nothing more than the cultivation of such an artistic sense as will help boys and girls to wash their hands, comb their hair, clean the nails, and put their desks in order. In music, it may mean merely the cultivation of the primary music sense and an appreciation of clean, wholesome sentiment in song.

In geography, it should mean a reaction against "sailor geography," against exclusive map-study and old-time drill on spots and lines, less attention to ten thousand and one insignificant brooks, ponds, hills, villages, and harbors in all parts of the world, a movement breaking away from grind on locations and isolated facts, a first step toward vitalizing method and humanizing subject-matter, putting our children in a position no longer to be staggered utterly by the great mass of facts connected with the distribution of plants, animals, and men, but to comprehend their attendance upon wide-reaching

principles. Then, we may give greater emphasis to commercial and industrial geography in the elementary school.

HISTORY IN THE LIFE OF THE CHILD

WALTER A. EDWARDS, PRESIDENT OF THROOP POLYTECHNIC INSTITUTE, PASADENA, CALIFORNIA

The education of the schools has been defined as a preparation for life. And the definition appeals to one as both broad and noble. It seems to enlarge the school to the full scope of human experience, and to elevate it to the level of man's highest ideals. This conception is embalmed in the word commencement, meaning the day which marks the end of the preparation and the beginning of real life. But this is not the truest conception of education. School is not a preparation for life; school is life. It is no gymnasium where with artificial exercises we train and harden the muscles so that they may after a while be equal to some serious task awaiting us. School, like life, is real, it is earnest, and commencement is not its goal. If the future should happen to hold for a given child no more of life, if he should die before he grew to manhood, still a school of the right kind would be the best place for him during his childhood. The considerations which should govern in the school are not the far-off account of years, not an imaginary view of an unknown distant future, but the status and needs of the child here and now. Our study of the child's needs must be not superficial, but profound and comprehensive, and must take into account the fundamentals of character and life; but with this understood we shall do our duty if we ask ourselves not what sort of a man will this child make, but what sort of a child is he now.

Now these considerations profoundly modify our view of what the child should do in school. If they are sound—and I cannot doubt it—his school work should not consist of exercises and drills conceived of as fitting him for something different that he is to do later, but should have value and richness of content in itself. School should mean to the child what life means to us, with all its seriousness and comprehensiveness and solidity. His lessons should appeal to him as real and worth while. There should be a vital contact between them and his out-of-school interests. All that he does, whether in school or out, should be of a piece.

Now this does not mean that all school work should necessarily be what is foolishly called "practical" and concerned only with material things. He makes a sad mistake who imagines that a boy's mind is occupied wholly with the visible and the tangible. On the contrary, as the poet tells us,

> A boy's will is the wind's will,
> And the thoughts of youth are long, long thoughts.

You can count just as confidently on the glorious fancies and generous ideals of your boy as on his fondness for candy or baseball. His daydreams are certainly not less real and precious to him than his dinner. And the point I am urging is that what we give him in school must tie up to something he has

here and now, whether daydreams or dinner, not to something he is likely to have when a man.

A fellow-teacher once complained to me of the unfair tests on which teachers are sometimes condemned. Other employees, she said, are expected to satisfy their employers, mature, presumably reasonable, beings. Teachers are condemned as failures if their pupils are dissatisfied—immature, heedless, flighty, incapable of forming an opinion worthy of respect. And yet there is an element of justice in this test, for the whole duty of the teacher is to meet the present needs of the pupil, and even a child must have some instinctive sense of failure or success in the satisfying of his own needs. And similarly a curriculum which does not meet the present needs of the child, which does not in some sense justify itself to him, is to be condemned.

Our point of view then in selecting and arranging studies for the curriculum and also in determining the methods to govern our teaching must be the child. We must take the child just where we find him. We must approach each subject from his point of view.

History in the life of the child—for this is my topic—is then the whole pedagogical problem. There must be no history in the school except that which can somehow be vitally connected with the child's life. Nay, this is true of us all. Says Hinsdale: "Life alone enables us to form the conception of history." And Newman in the *Grammar of Assent* dwells at length upon experience as the interpreter of history. He says:

> I may indeed bring home to my mind so complex a fact as a historical character by composition out of my experiences about character generally—Tiberius, James I, Louis XI, or Napoleon; but who is able to infuse into me, or how shall I imbibe, a sense of the peculiarities of the style of Cicero or Vergil, if I have not read their writings? or how shall I gain a shadow of a perception of the wit or the grace ascribed to the conversation of the French salons, being myself an untraveled John Bull?

Now the mature man has a long and varied experience and the abundant material garnered from that experience out of which to construct his view of history. But the child's experience is short and narrow and has been concerned with trifles. What practical acquaintance has the child with industrial and commercial conditions, national ideals and institutions, the operation of law on a large scale? And yet these meagre experiences of the child are the material with which we must work. Perhaps you think the history teacher is required to make bricks without straw if she must build up a true conception of history out of such childish ideas. All that I can say is that the teacher's path is indeed no royal road. She must work with the actual material she finds in the boy's mind, or not at all. Let me quote again from Newman:

> The rustic in Vergil says:
>
> "Urbem quam dicunt Romam, Meliboee, putavi,
> Stultus ego, huic nostrae similem."
>
> And so the child's idea of a king, as derived from his picture book, will be that of a fierce or stern or venerable man, seated above a flight of steps, with a crown on his head and a scepter in his hand. In these two instances indeed the experience does but mislead,

when applied to the unknown; but it often happens on the contrary that it is a serviceable help, especially when a man has large experiences and has learned to distinguish between them and apply them duly, as in the instance of the hero "who knew many cities of men and many minds."

Now I take it that most of the history work in the grades below the high school, certainly below the eighth grade, must be confined practically to the acquisition of facts. Do not misunderstand me. By facts I do not mean dates and names alone, nor do I advocate that the time set apart for history should be devoted to committing to memory a chronological outline. I mean that not much can or should be attempted in the philosophy of history, in a careful analysis of causes. Nor should the teacher be overconcerned about her pupils acquiring the proper historical "method." She will have done enough if she teaches successfully—ah, yes, successfully—the facts assigned to that grade. For as has been intimated above, it is no easy task to teach historical facts.

I believe it is generally thought best to make the history of our own land the first and principal, if not the only, subject of historical study in the elementary school. Patriotically and practically this is perhaps best. But it is of doubtful soundness from the standpoint of pedagogical theory. For theoretically the child should first master the simpler phases of a subject and afterward the more complex. He should begin his history study with the comparatively simple, naïve civilizations of ancient times, when governments were single-minded in their interests and straight-forward in pursuing them, when the organization of society was simple and rigid and easily comprehended, when the motives governing action were the primitive ones we all instinctively understand, when the occupations of daily life were few and of well-recognized types. Instead of this the American child must wrestle with a governmental organization, perhaps the most complicated and elaborate on earth, except that of the German Empire and possibly Great Britain. He must try to understand a society whose elements are most diverse and in constant flux, and whose interests and ideals are multitudinous. He must study a civilization which is daily increasing in complexity, and an industrial system which seems to embrace every occupation possible to man, whose organization is so delicate and whose inter-ramifications so far reaching that the smallest disturbance may produce the most astounding changes. The motives which govern this modern society are not the naïve ones of primitive ages but are sophisticated, self-conscious, composite. We of this latter day

> Look before and after
> And pine for what is not;
> Our sincerest laughter
> With some pain is fraught.

The ancients in their simple joys and sorrows and labors were children compared to us—and children find them easier to understand than modern peoples. This comparative unfitness of modern history for children's minds is partially obviated by selecting our material for the younger classes from the times of

discovery and settlement. Then conditions were indeed primitive and life comparatively simple. The interests were few and elemental, except, be it noted, that tangle of ambitions and rivalries in Europe which after all gave the initiative to settlements and wars in America and of which we are always conscious in reading the early history of our country. But this European background against which early American conditions are projected must be mostly ignored by the teacher of the younger children. For thus only is it possible to treat our history so as to appeal to them powerfully. Says Mrs. Barnes: "The story of LaSalle's wanderings is more noble and more pathetic than that of Ulysses. Our continent needs a Homer to restore its heroes." So we shall find in tales about the Indians and in the hardships and heroisms of colonial times and frontier life abundant material suited to the child's mind.

Now I hope no one will misunderstand me. I do not mean that we should give children nothing except what they may fully comprehend. I am only insisting that every lesson should have its starting-point in the familiar, and that what is new in it should be referable to something in the child's own experiences. But I am not ignorant that it is the mysterious that fascinates. The motive to study is the desire to master the hitherto unknown. Let the child then reach out after things somewhat beyond him. Let him occasionally lose his head in the clouds, if only he keeps his feet on the earth. For it is true of the child as of the man that his reach should exceed his grasp.

I hardly need to urge upon the attention of this body of teachers the desirability of occasional excursions to such historic places as may be within reach. Fortunate is the teacher who has the privilege of recounting to her class some great event on the very scene where it occurred. Next in value to the actual trip are stereopticon views, or, failing that, photographs. Let me repeat that the object sought by all these and similar means is not only correctness of information but vividness of conception and keenness of interest. Let us use all available means to make the historical material real and live, to bring it home to the child's own experience, to make it a part of his life. We have not accomplished our purpose unless the boy can think of himself as taking part in the scenes described. So much must the pupils enter into the spirit of their history that, as Mrs. Barnes has said, in studying Egyptian history they must feel as if they might have been ancient Egyptians themselves. Tell a young child a fascinating story of adventure, and in the midst of it ask him, "Now what would you have done if you had been there?" This question will rarely take him by surprise. He will have an answer ready, satisfactory to himself if not to you, for he has been there in imagination all the while you have been telling the story. If he is really interested in the story he views it not as an onlooker, but as one taking an active part in it. Unless we approximate this vividness of impression in our history work we do not make it a part of the life of the child. Thus the wise teacher will seize upon all chance local aids to this end. Election day, when it comes around, can be made useful in many ways. Sufficient sample ballots can always be obtained to make possible the holding of

an election within the school, at which all the forms should be closely observed. A talk to the class by a city or state official may be helpful, but choose your man with care. Read current news of course and the daily paper. If the child understands that what he today reads in the papers and hears discussed at the dinner table will in the future be studied in the history books by boys in school who come after him, it may give him a new conception of how history is made.

An effective exercise for making real the functions of government is to ask the children to name over the points in which they individually come in contact or have dealings with the national, state, county, and city governments. They will probably be much astonished to find how much larger a part the local government plays in their lives than the national. Little danger that the remoteness of the latter will lead to its depreciation in their minds. Sentimentally the national government so far overshadows the city that the prestige of the latter needs such emphasis as we can give it.

An interesting method for introducing children to the study of history is that proposed by Mary R. Alling-Aber in the volume entitled, *An Experiment in Education*. The class are supposed to have begun their study of geography and to have drawn a map of their own town. Let the teacher show them a map of the same region before its first settlement. The difference between the two maps will immediately kindle great interest and each child will wish to learn about the series of events which brought about these changes. These events may then be taken up in chronological order, the changes wrought by each recorded in turn upon the map, and so the history of the growth of the town traced. It is indeed to be objected to this plan that it emphasizes the outward, material aspects of historical development and takes little note of the inner current of emotions, aspirations, thoughts, beliefs which constitute the essential life of the community. But for the child, history must necessarily be largely objective and materialistic.

I have a suggestion to offer which may be helpful especially to California teachers, possibly to those in some other of the newer sections of our country. In every California town there are many families only recently come from other states. Therefore in every history class there are children familiar with distant places, some of them important in history. Now when reference to one of these places comes up in the course of the history work one of these pupils may be able to add vividness and reality to the lesson by telling his classmates what he knows by personal experience about the place in question. The New England child, he who has seen the Hudson, the boy from the sunny South, one who has dwelt on the banks of the Mississippi—these can all instruct their less-traveled fellows. I hardly need to add that the teacher must have convinced herself beforehand, by questioning the pupil or otherwise, that he can really tell something interesting and worth while.

In what I have said I have tried to plead the cause of the child. I have urged upon you the most difficult of tasks, that of putting yourself in his place.

I have attempted to show that if our children are to learn history it can only be thru those aspects of history which they can in some measure interpret by means of experiences they themselves have had. In order that their study may truly lead them out into hitherto unexplored fields whose very mystery is an invitation, it must necessarily get its hold on them thru that which is familiar. That they may travel securely from the known to the unknown let us first make sure that what they begin with is indeed known.

DISCUSSION

Miss Agnes Eliott, teacher of history in the State Normal School, Los Angeles, Cal.—"The boy's lessons should appeal to him as worth while, there should be a vital contact between them and his out-of-school interests. There must be no history in the school except that which can somehow be vitally connected with the child's life." The excellent paper we have just heard places the ideal high, yet not too high to appeal to our sound common sense and best pedagogical theory. We know, however, that by actual practice in large numbers of schools of our land the pupil still gains his knowledge of history from the pages of his textbook and we know most surely that with such methods, history can never become a part of the child's life but only a grind to be turned off as soon as possible. So we are interested this morning in searching out ways and means by which we may reach the ideals set forth in this paper.

"Not intellect but feeling is power," we hear over and over in the Child-Study Department. As we turn to our American history, complicated as it is from the political standpoint, we find that it lends its aid at each step if we would follow the advice given and enlist the emotions in our work of education. And this may be done without diverging one iota from the straight line of fact and truth. Our continent does need a Homer to restore its heroes, but when he comes let his subject be, not only La Salle and his picturesque wanderings, but those brave pioneers who fought first-hand with nature, as did our forefathers in pushing the frontier line westward, our American inventors in their struggle with poverty and discouragement as they prepared the way for our industrial greatness. But these are not all: thruout our history may be gathered the material, which, given in story form and not from covers of a textbook, will furnish enough to awaken enthusiasm and pride and, when needed, judgment of right and wrong, for of all things most interesting to young people are the records of human life and achievement. Story and poem of our master-minds—these, too, have their place in the history lesson as truly as in the literature hour. Dramatization, of which we are only learning the value, may be our strong assistant.

One suggestion given by Professor Edwards I wish might go forth from this educational body with the force of a command as as it was voiced eight years ago by the Committee of Seven; i. e., that the American boy is heir to all the ages and has a right to his inheritance. Have you ever watched a group of boys searching for material to use in their revival of the Olympic games on their own playground converted into a Greek stadium? If not, you can hardly realize the amount of information thus absorbed about the Discus-thrower, the Wrestlers, and other statues, about buildings, the great men of Greece, and the ideals of her people in those days of Olympic greatness. In like manner from the stories of Rome comes a knowledge of her bridges and aqueducts, her conquests, and the manners and customs of the time that furnishes a basis for later understanding of Rome's gift to the civilization of western Europe. Especially has our American boy whose "schooling" ends with the grammar grades a right to the culture that all unconsciously comes from the delightful history-reading of these peoples of other lands and other times.

In the paper under discussion a point made, i. e., that our choice of school work should be guided, not by the far-off account of years, but by the status of the child here and now,

is well taken, yet must not be carried too far. In one particular our education must prepare very definitely for this "far-off account of years," and to do so our subjects and methods must be thoughtfully chosen. We are in great need of a type of citizenship not found in any large degree among us today. To meet that need our American boys must go forth from our schools with a definite equipment—an acquaintance with the great questions of the day that are thronging upon us for solution, and an awakened understanding of the needs of these cities of ours, these cities that have grown up "without the political pale" uncared for and unprotected, while our voters have been absorbed with national issues.

And this is most pertinent to our subject of "History in the Life of the Child." To us teachers, time and precedent has hallowed colonial land grants, charters, and governments and even the slavery controversy, giving, perhaps, undue importance to the things that are past, while our boys are living in an age of newspaper, magazine, and home discussion of modern issues. Their ideal is too often taken from the "Captain of Industry" who gains quick success by shrewd and perhaps dishonest business methods.

Here is our opportunity to make our history, not only a part of the boy's life, but a preparation for the "far-off account of years." The period from the Civil War up to date—and particularly the up-to-date part—must receive most thoughtful attention at our hands. Thru its pages may the boy understand the scientific and economic development that has brought about our great industrial questions of the day. And in this work no American teacher can afford to neglect the daily papers or allow herself a womanish disregard of political issues. The type of hero whose stories we must tell should not be taken entirely from the pages of Old World chivalry, but should more often be the man who stands for right and honesty in business and public life—the young district attorney, Folk of Missouri, and his battle against official dishonesty. To such study should be given the strength of our best teaching, backed by a high admiration for this type of truth and nobility that has arisen to meet our modern needs.

We should recognize as a great trust this work that has fallen into our hands, this preparation of our boys to become enlightened citizens filled with a desire for social service, which, being interpreted, means appreciation of duty along political lines from caucus and primaries to polls on election day—such a recognition of duty our boys must have and with it an honesty of purpose that makes the square deal in business and public life a sacred thing. With such teaching the next generation may be saved the constant political house-cleaning now necessary in nation, state, and city; for ideals will have been planted by our history-teaching in our daily schoolroom work that shall answer

THE NEEDS OF THE HOUR

"What do we need to keep the nation whole,
To guard the pillars of the State? We need
The fine audacities of honest deed;
The homely old integrities of soul.
We need the Cromwell fire to make us feel
The common burden and the public trust,
To be a thing as sacred and august
As the white vigil where the angels kneel.
We need the faith to go a path untrod,
The power to be alone and vote with God."

DEPARTMENT OF SECONDARY EDUCATION

SECRETARY'S MINUTES

FIRST SESSION—Tuesday Morning, July 9, 1907

The department met in joint session with the departments of Higher Education and Normal Schools for the consideration of "The Preparation of High-School Teachers." The minutes of this meeting will be found under the Department of Higher Education.

SECOND SESSION—Wednesday Morning, July 10

ROUND TABLE CONFERENCES

Round Table A. Topic: "The Preparation of the High-School Teacher."

Principal J. Stanley Brown, of the Joliet, Ill., High School, led the conference and Principal S. A. Underwood, of Kansas City, was made secretary.

The general subject was discussed by Principal H. M. Barrett, of Pueblo, Colo.; President John R. Kirk, of the State Normal School, Kirksville, Mo., and others.

There was general discussion on the adoption of the report of the Committeeo f Seventeen on the Professional Preparation of High-School Teachers, but no report of these discussions was made for publication.

Round Table B. Topic: Mathematics.

The mathematics round table was called to order by the leader, Charles Ammerman, head of the department of mathematics, William McKinley High School, St. Louis, Mo. J. F. West, head of department of mathematics, State Normal School, San Diego, Cal., was appointed secretary.

The chairman, Charles Ammerman, presented a paper on "Adaptation in Mathematics."

E. H. Barker, head of department of mathematics, Polytechnic High School, Los Angeles, Cal., read a paper on "Graphic Algebra."

Fletcher Durell, teacher of mathematics, John C. Green School, Lawrenceville, N. J., presented a paper on "Original Demonstrations in Geometry: The Purpose, Nature and Methods of Presentation."

J. Melville McPherron, head of department of mathematics, Los Angeles High School, also read a paper on "Original Demonstrations in Geometry: Time of Introduction and Limitations."

Round Table C. Topic: History.

The history round table of the Department of Secondary Education met at the First Congregational Church under the leadership of C. E. Locke, of the Polytechnic High School, Los Angeles, Samuel Baumann being appointed secretary.

The first paper was by Mrs. Ada I. Atkinson, of the history department of the High School, Omaha, Neb., on "The Notebook in History Classes: Its Value and Limitations."

"The Place of Modern History in the High School" was presented in a paper by E. I. Miller, professor of history and political science, State Normal School, Chico, Cal. R. D. Hunt, principal of the high school, San José, Cal., led the general discussion which followed.

Round Table D. Science.

The round table was called to order by the leader, Lewis B. Avery, superintendent of schools, Redlands, Cal. Arthur Durward, of the High School, Pomona, Cal., was appointed

secretary. Upon the first subject "The Value and Limitations of Quantitative Experiments in Physics and Chemistry," a paper was presented by George C. Bush, principal of high school, South Pasadena, Cal., the same being discussed by W. A. Fiske of the Richmond High School, Richmond, Ind. General discussion followed.

The second subject considered was "The Use of the Microscope in Biology Classes." The first paper presented was upon "The Purpose of Work with the Microscope," by William M. Kern, president of the State Normal and Industrial School, Ellendale, N. Dak.

This was followed by a paper upon "The Kinds of Microscopic Work Valuable for High-School Students," by H. F. Wegener, principal of high school, Tacoma, Wash.

The discussion was opened by Mr. J. B. Lillard, teacher of biology in the William McKinley High School, St. Louis, Mo., and C. T. Wright, Redlands, Cal.

A general discussion followed, having mainly to do with the recommendation of various modifications of projection apparatus. It seemed to be a general opinion that more work in projection microscopy should be done.

Thursday Afternoon, July 11, 1907

The president of the department E. W. Lyttle, inspector of the University of the state of New York, presided.

The topic for the session was "The Relation of the High Schools to Industrial Life."

President Lyttle presented a paper on the topic of the session.

"The Function and the Value of the Commercial Course" was discussed by J. H. Francis, principal of the Polytechnic High School, Los Angeles, Cal.

"The Function and the Value of the Manual-Training Course" was presented by J. Stanley Brown, superintendent of Township High School, Joliet, Ill.

Ellsworth Robey, of Kokomo, Ind., county superintendent of schools and member of State Board of Education, responded to a request for information regarding agricultural work in Indiana Schools.

A Report of the Committee on Six-Year Courses of Study was presented by the chairman, Gilbert B. Morrison, principal of the William McKinley High School, St. Louis, Mo. This report was discussed and adopted by vote of the section and it was unanimously recommended that the report be published in the volume of proceedings.

The recommendations of the Committee of Seventeen on the Professional Preparation of High-School Teachers was then presented by President Lyttle. J. H. Francis, of Los Angeles, moved that the report be amended to allow at least two years of commercial experience to substitute for an equal time of college training, but after considerable discussion this amendment was lost and the general recommendations were approved.

The following resolution was then presented by Miss Grace R. Southwick, of the California School of Mechanic Arts, San Francisco, and was adopted without dissenting vote.

Resolved, That it is the sense of the Secondary Department of the National Educational Association that, in standardizing the requirements for high-school teachers, due weight should be given to substituting practical experience for academic requirements in certification of special teachers in commercial lines, manual training, drawing, etc.

The Committee on Nominations composed of Principal W. L. Griswold, Youngstown, Ohio; Principal W. H. House, Los Angeles, Cal.; and Charles Ammerman, of the William McKinley High School, St. Louis, Mo., then made the report or nominations of officers for the ensuing year as follows:

For *President*—Gilbert B. Morrison, principal of the William McKinley High School, St. Louis, Mo.

For *First Vice-President*—H. H. Cully, principal of Glenville High School, Cleveland, Ohio.

For *Second Vice-President*—Fletcher Durell, teacher of mathematics, John C. Green School, Lawrenceville, New Jersey.

For *Secretary*—Lewis B. Avery, principal of High School, Redlands, Cal.

The report of the Committee on Nominations was received and adopted and the nominees declared elected as officers of the department for the ensuing year.

The department then adjourned.

LEWIS B. AVERY, *Secretary.*

REPORT OF THE COMMITTEE OF SEVENTEEN ON *THE PROFESSIONAL PREPARATION OF HIGH-SCHOOL TEACHERS*

INTRODUCTION

BY THE CHAIRMAN, REUBEN POST HALLECK

The Secondary Department of Education at the 1905 meeting at Asbury Park, N. J., voted that a committee be appointed by the president elected in 1905, Dr. E. W. Lyttle, New York state inspector of high schools, to consider the subject of securing proper professional preparation for high-school teachers. In accordance with this resolution, the following Committee of Seventeen was appointed.

REUBEN POST HALLECK, *chairman*, principal, Boys' High School, Louisville, Ky.

H. M. BARRETT, principal of high school, Pueblo, Colo.

FREDERICK E. BOLTON, professor of education, State University of Iowa.

STRATTON D. BROOKS, superintendent of schools, Boston, Mass.

J. STANLEY BROWN, superintendent of Joliet, Ill., Township High School.

EDWARD F. BUCHNER, professor of philosophy and education, University of Alabama.

JOHN W. COOK, president, Northern Illinois State Normal School.

E. P. CUBBERLY, professor of education, Leland Stanford Jr. University.

CHARLES DEGARMO, professor of science and art of education, Cornell University.

EDWIN G. DEXTER, professor of education, University of Illinois.

PAUL H. HANUS, professor of education, Harvard University.

E. O. HOLLAND, junior professor of education and high-school visitor, University of Indiana.

C. H. JUDD, professor of psychology, Yale University.

JOHN R. KIRK, president, Missouri State Normal School.

GEORGE W. A. LUCKEY, professor of Education, University of Nebraska.

GEORGE H. MARTIN, secretary, Massachusetts State Board of Education.

M. V. O'SHEA, professor of science and art of education, University of Wisconsin.

As chairman, I asked every member of this Committee of Seventeen to

prepare a paper dealing with some phase of this subject. Every one complied with this request. I am glad that the National Education Association will publish these papers in a separate pamphlet to be known as the "Report of the Committee of Seventeen on the Professional Preparation of High-School Teachers."

Because this subject is somewhat new, it was thought wise to have a large committee from all parts of the United States, representing high schools, normal schools, colleges, post-graduate departments of education, and superintendents. The majority of this committee have at some time been high-school teachers. Seven of the college professors on it were selected because they had actually taught in secondary schools and thus had first-hand experience with the practical necessities of the case. These men also have the added advantage of connection with university schools of education. They have for some time been considering what is ideal as well as what is practicable in the training of secondary teachers. Several other members of the committee, in addition to the two now connected with normal schools, were formerly normal-school teachers.

Some critics may object because the members of this committee do not agree on all points, but let such remember that exact agreement in regard to the professional training of high-school teachers is not necessary for progress, in fact, exact agreement would soon stop advancement. Precise delimitations of method will probably be sought by the pedant, the inefficient, and those who lack originality, but it is to be hoped that the day is far distant when cut-and-dried methods of the same type shall be imposed on the secondary teachers of this land. There may be—and there probably should be—agreement on certain cardinal points, but let it not be forgotten that one of the reasons why progress in the United States has astonished the world is because there has been freer play for individuality here than elsewhere.

Some repetition will naturally be found among so many papers, but even when the same point is discussed, the angle of view is frequently different. Some divergence of opinion and variation in the emphasis placed on certain subjects might have been expected from so many different types of educators. Naturally those expressions of opinion in regard to which all the members of this committee agree will carry the most weight. In order that readers might gain more definite impressions, it seemed wise to select and bring together certain cardinal points on which there is substantial agreement. To decide on these, the following members met in deliberative session at Chicago on February 28 and March 1, 1907: Messrs. Bolton, Brooks, Brown, Buchner, Cook, DeGarmo, Dexter, Judd, Kirk, Luckey, O'Shea, and the chairman.

After much discussion, a brief document was prepared, to be known as the "Recommendations of the Committee of Seventeen on the Professional Preparation of High-School Teachers," and to be signed by all the members of the committee. These recommendations, which follow this paper, are the result of a conference which respected whatever conflicting views the members held

and which incorporated only those opinions in which all who were present could concur. While these recommendations leave out some things which several would have liked to see inserted, it is, nevertheless, felt that they represent a distinct advance over existing conditions. It was further agreed that additional opinions and matters on which the members of the committee could not agree would receive sufficient prominence in the individual papers following these recommendations. Every member who was at the Chicago conference agreed to these recommendations without dissent. Three of the members who were absent dissented on certain minor points, noted in connection with their names.

The chairman in this individual report wishes to emphasize what seems to him to be salient points. He is willing to concede that his views are influenced by his personal equation as an active high-school principal.

There was an Elizabethan stage, which could present Shakspere's plays, because, more than a century previous, certain towns had rules like this to determine who should act in the miracle plays:—

> All such as they shall find sufficient in person and cunning, to the honor of the City and worship of the said Crafts, for to admit and able; and all other insufficient persons, either in voice or person, to discharge, ammove, and avoide.

The twentieth century must find some means "to discharge, ammove, and avoide" all persons who would make "insufficient" teachers, or the profession of high-school teaching will never rise to Elizabethan greatness. Possibly schools of education might do some of their best work in acting as a sieve. Every year there are many persons desirous of getting positions in high schools whom all the professional schools of education in this country could not fashion into successful teachers. The great schools of art get rid of many would-be artists. Professors of education, while not infallible, can often tell that certain personalities could not succeed in the high school. It would be a great act of kindness to many to weed out such. There would be joy among untold adolescents, if schools of education would act as a sort of St. Peter to bar the gate against all the manifestly unfit who think they have a "call" or who proposed to break in uncalled.

1.* No matter what branch the high-school instructor is to teach, he ought to know the groundwork of psychology and its educational applications. Probably three-quarters of the psychology taught in many universities would be about as directly serviceable to a teacher as a fifth wheel to a coach. Human minds, nevertheless, do not work in a lawless way. It is just as necessary for efficient trainers of the mind to know its laws as for an electrical engineer to be familiar with the laws which electricity obeys, before he attempts to instal a plant. The civil engineer who deals with certain materials spends a long time studying their resistance. He does not build his bridge first and then ascertain the qualities of his materials. He learns all that he can before

*The numerals thruout all the papers mark those paragraphs referred to specifically in the "Joint Recommendations."

he starts his bridge. In the same way, the high-school teacher ought to learn certain things thoroly about psychology before he even begins to teach. This is the most important single study in the professional training of the high-school teacher. As an Irishman might say, it is not so much psychology that the teacher wants, as it is educational psychology. This is something of a blanket term, but it includes any deductions or suggestions, helpful to the teacher, which can be drawn from the main stream of psychology or from any of its branches or subdivisions, no matter whether genetic, experimental, adolescent, physiological, animal, or morbid psychology.

Some eminent psychologists are not very apt at showing the applications of their subject in practical education. It is scarcely more than a quarter of a century ago that an authority in electricity in one of our great universities said that the electrical current could never be so subdivided as to make it practical for lighting small rooms. Like some psychologists, he was too busy investigating and theorizing to stop to make practical applications of his knowledge. When such an application is made, it usually is, like all truths of greatest worth so self-evident as to render a formal statement of the process almost offensive to the theorizer.

Since there has been some skepticism recently shown in certain quarters about the utility of psychology in this connection, it may perhaps not be unwise here to point out a few ways in which psychology may be made serviceable to the secondary teacher. In the first place, the gateway to teaching pupils is by means of a nervous mechanism. Teachers ought to have a clear working knowledge of this mechanism; of its sensory and motor neurones, and their development, its associative tracts, the division of labor in the brain, the laws of neural fatigue, recuperation, and nutrition. They ought to realize that knowledge of all kinds, at the last analysis, rests upon a definite neural disposition, that Shakspere's daffodils would mean nothing if there had been no previous modification of nerve cells due to sensory stimuli from the flower. The fact that the nervous system grows to the mode in which it is exercised ought to be something more than an empty expression. In short, the writer feels that teachers ought to have some such working conception of physiological psychology, as he has tried to give in his *Education of the Central Nervous System*.[1] The high-school teacher will then be the better able to perform one of his important functions—that of teaching first-year pupils how to study. Book study is unnatural, and the more thinking it requires, the more unnatural it is. For untold ages, man was trained by making thought responses to sensory and motor stimuli or to the vivid imaginative recall of such stimuli. Many a boy drops out of the high school because he has never learned how to concentrate his mind on Latin or algebra. The first step in teaching him how to study by himself consists in giving him some faint dilution of the old sensory and motor stimuli to which the brains of his progenitors were accustomed. These stimuli will be like the scaffolding employed

[1] The Macmillan Co., New York.

in building a house, and they may later be dispensed with. If a boy studying his Latin forms is given a lead pencil and asked to write them out, a new stimulus is applied to two different parts of his brain. The motor tract concerned in writing is set in action and the black marks appeal visually to the occipital lobe. If he repeats the forms aloud, the speech center in the third frontal convolution and the auditory center in the temporal lobe are stimulated. Such stimuli help to anchor his attention and enable him to continue at his task. Some knowledge of physiological psychology is needed to afford intelligent guidance and to furnish philosophical explanation for insistence on certain methods.

Experimental psychology has filled many pages with matter useless to the teacher, yet it has given to pedagogy a number of facts of great value. For instance, no teacher can use the time of pupils economically unless he knows the saving in interrupted repetitions in learning certain things. Experimental psychology has shown that the number of consecutive repetitions necessary for mastery in certain cases is far greater than when these repetitions are separated by a certain interval of time, and that 40 per cent. of time and energy may sometimes be saved by not insisting on absolute mastery at one attack.

Further experiment has shown that the central nervous system has peculiar laws of its own in showing progressive stages of acquired adaptation and skill. The pupil climbs the stairs rapidly for awhile with some new acquisition, then there is a long landing where he remains on a dead level, while the teacher grows discouraged and scolds and perhaps disheartens the pupil. Then there is another rapid ascent, followed by another horizontal plane. A knowledge of such laws in neural development would make more effective teachers and happier pupils.

It is time that a new term was coined in educational psychology, the "psychology of difficulty." If teachers were grounded in this branch, they would be less often swept off their balance by "easy" methods and tasks. The psychology of difficulty tells us that what is popularly known as the "easiest" road between two places is seldom the best psychological road, that while a straight line is the shortest geometrical distance between two points, such a line is seldom the shortest psychological distance. Experimental psychology showed us long ago that consciousness, like the greatest captains of industry, whose hours are precious, saves its time and energy by erecting about itself certain barriers which interfere with any straight line access. Many stimuli from light and sound and odor are not allowed to cross the "threshold of attention." Effective attention can be secured only by strong stimuli. The day that it ceased to protect itself against weaklings, its efficiency would cease. The most of us have to be told a thing vigorously in three different ways and then knocked down by experience before we really learn a new truth.

Psychologists promptly called attention to the fact that it is not the spelling

of the hardest words which is most often forgotten. "Chicago" and "knowledge" will be misspelled less often than "confectionery" and "separate" because the human mind will not put forth its strongest prehensile powers except when confronted with a difficulty. The Anglo-Saxon race did not develop under tropical skies with easy problems. The difficulties in the way of settling New England may even at this distance cause tender hearts to ache, but climates and subjects may be too "easy." The Spanish language is very easily spelled and learned with comparatively small effort, and this brings us to the arithmetical problem: "If we find one Shakspere using a hard language like the English, how many should we find using the Spanish language, only one-third as hard?" High-school teachers need to learn that Anglo-Saxon adolescents do not like easy things. They prefer football to marbles, to the intense astonishment of tropical races.

Many high-school teachers make themselves and their principals a vast amount of extra work in discipline and also fail to get the best results because they do not know the psychology of suggestion. It is usual to call persons fools who, after an accident with a weapon, claim that they did not know that it was loaded. Ideas, like firearms, are loaded, the ideas more often than the firearms. For a teacher, the best practical working definition of an idea is "a hint to do something." To emphasize the importance of suggestion, teachers should learn something of hypnotism. So far as manipulating suggestive ideas is concerned, every teacher of adolescents must learn to be something of a hypnotist. People of individuality, who leave their impress on those around them are always suggestive. The psychological relation between suggestion and initiative is of the closest kind.

The modern proverb, "If you don't see what you want, want what you see," brings us to another point of educational psychology, important for the secondary teacher. Certain teachers and salesmen are gifted at making pupils and customers want what they see. Such are worth their weight in gold. Psychology gives us the conditions of making people want what they see. We study these conditions, variously labeled as the psychology of interest or of feeling. The psychology of imagination and of thinking are also necessary in this same process, while the psychology of will conditions all else for the educator.

2. A study of apperception, or of that process under some other synonymous name, ought to furnish a philosophical reason why the high-school teacher should not be merely a narrow specialist, but a person of broad culture. We see things not as the things are, but as we are. If we are narrow we shall see great things small; we shall see only a microscopic section of the pupil's life and interests; and we shall magnify our petty specialty out of all proportion to its relation to many-sided life. We must be broadly educated so that we can determine the educational value of the different studies and know what instruments of learning to employ in order to introduce richness and harmony and avoid discord in the educational orchestra. The

high-school teacher, above all, needs to be responsive to all those influences which give variety to life, which quicken the imagination, which bring him into sympathetic touch with the lives of others. You cannot send the whole child to school, unless the whole teacher has gone to school. Any training which binds with dwarfish hands even the sweet influence of the Pleiades on his life will render him a less-inspiring teacher. He is dealing with those who are looking forward to a wonderful voyage of discovery to a new western world. He furnishes the incentive to that voyage; he superintends the preparation for it. In power to make or mar, he is only a little lower than the angels.

Finally, a careful study of educational psychology will help high-school teachers to form independent judgments when confronted with some new method or proposition and will further enable them to make valuable suggestions to teachers in the grades and to parents. A high-school instructor in English, for instance, finds that his pupils come to him such bad spellers as to be unable to get a good business position. When he complains, he is told by the graded teachers that scientific experiments have shown that those grades which have no specific instruction in spelling send out as good spellers as come from schools where spelling is a daily set task. He starts to ascertain the facts and finds that such has proved the case in a city where a few schools from the entire number omitted specific drill in spelling and taught it only incidentally for a few years. If he has been grounded in scientific method—and *every high-school teacher should be grounded in rigorous scientific method as a part of his indispensable professional preparation*—he soon notes that it is impossible for him to estimate certain factors accurately. Did the novelty of the situation in those special schools arouse every teacher to pay far more attention to the spelling of words which came up naturally, no matter in what branch or connection? Did every teacher feel more intensely that the children of those special schools must not be allowed to fall behind in comparison with other schools? Did the new situation make the parents feel that added responsibility was thrust upon them? Would the state of affairs have been precisely the same if the entire city had abandoned specific spelling lessons, if there had been no rivalry, and if the novelty had completely worn away?

He soon realizes that it is impossible to answer these questions with absolute accuracy, but his educational psychology has taught him to recognize whatever advantage there is in this claim and to be on his guard against expecting results in conflict with mental laws. While general psychology has taught him that repetition is one of the chief foundation stones of memory, educational psychology has indelibly impressed on him the more important fact that energy in the mental state is far more effective in securing memory than mere uninterested, somnolent repetition, and that interest is not only one of the indispensable factors of energy, but that interest is the divine mother of all world-compelling energy. He has learned theoretically what usually happens when an educational gunner fires at a mark outside of the range of interest, and he sees spelling, as a rule, taught in a perfunctory way. Even theoretical educational psychol-

ogy will teach him that interest and enthusiasm are as catching as smallpox, catching even in spelling, if a live teacher, who has breathed the breath of life into his pupils, has them spell only live words. He then is thoroughly competent to say that some *may* teach spelling incidentally far better than others from a specific list. His knowledge of psychology and of scientific method forbids him to make a more sweeping statement which might lead some astray. Such h gh-school teachers have been known to change the attitude of an entire c:ty in the teaching of English, by insisting on the simple law of energy and interest—that a child shou:d spell when there was something to spell, talk when there was someth ng to say, write when there was something to communicate, and that the teacher should be responsible for providing the interest and the occasion, just as an intelligent parent succeeded in getting two of the laziest boys in the city to clear his garden of stones, by putting in the corner a mark at which they could throw. Other teachers have little fuss and feathers with Latin or modern language forms after a few months, because these teachers know and apply the psychological truth that energy and interest are natural qualit'es in a mental state when dealing w'th *new* matter, as well as with anything demanded by the present logical necessities of the case. Those teachers who let the golden time of novelty pass without utilizing to the utmost the mental energy then liberated are like the landsman who waited to sail his boat out of the harbor unt l after the breeze had died away. The teacher grounded in modern educational psychology will have an advantage over the one who discovers the right method through experience alone. He will know why and when to do a certain thing and not stumble blindly on the right process. In short, increased efficiency and leadership may be expected from the high-school teacher who has made a thoughtful study of educational psychology, accompanied by training in scientific method.

Professional training is strictly not concerned with the subject-matter, as mere original information, but only with that matter from the point of view of the high-school teacher, or more strictly still, from the point of view of the high-school pupil.

3. This difference between a knowledge of the subject-matter and the recasting it to fit the pupil's mind, however self-evident it must seem to every psychologist, is not yet generally appreciated by high-school teachers or their college instructors. This difference is as great as the difference between a side of leather in a wholesale store and a part of that same leather cut out by a skilful shoemaker to fit a certain person's foot. "Knowledge is knowledge," says the university specialist. "All that is necessary is to give the high-school teacher plenty of knowledge and his pupils will get it." Yards of silk are yards of silk. All that is necessary is for a woman to give her dressmaker plenty of goods and a dress will be forthcoming. Why, then, will women gladly pay certain dressmakers three times as much as others to make up precisely the same dress pattern? Such a question would seem childish to every woman who has had "trouble with her dressmaker." This question

would seem more childish in this connection if it was not for the fact that so many university professors are today claiming that knowledge is the prime requisite, that other things will take care of themselves.

4. The first necessity for the high-school teacher is, of course, ample knowledge. If he is to teach Latin, for instance, he should be a better teacher for studying it four years in a high school and four years in college. A teacher in the academic department of a high school should not only have a degree from a reputable college, but he should also have given special study to any subject which he expects to teach. If no absolute number of years can be assigned for subjects as various as Latin, bookkeeping, and manual training, the teacher specialist should be guided by the general rule that he ought to study his branch until he can survey it as a whole, keep in mind at one time its parts, decide what may be omitted without detriment, and have confidence in his own opinion on any points raised in connection with his subject. Without such a mastery, it ought not to be possible for a high-school teacher to get a certificate. His certificate should be issued only for those special subjects in which he has adequate scholarship.

5. Every high-school teacher ought to have a definite course in recasting his subject from the pupil's point of view. A Ph.D. may chafe at having to learn his subject over under such restrictions, but why should he chafe any more than a plumber, who comes to your home with an ample supply of pipe and joints which do not fit, chafes at being sent back to the shop for suitable material? Why should the Ph.D. not expect to submit to the same earthly laws which every successful tailor, farmer, cook, and manufacturer must obey? The teacher must fit the pupil's mind. Misfit knowledge discourages the pupil, perplexes him, and frequently causes him to stop school. High-school teachers have often been heard to repeat precisely the same explanation four or five times to a wretched pupil, making no attempt to find a different route into his mind, or to lodge the fact there by slow stages, resting patiently on successive landings.

This point of working over one's store of knowledge so that it can be intelligently communicated to the pupil and assimilated by him is as important as getting that knowledge in the first place. Universities and schools of education ought, for a while at least, until the full importance of such a distinction is recognized, to keep sharply separate those courses which give new information to the student and those which teach him how to adapt to growing minds the information which he already has.

5*a*. There are two practical ways that may be employed in training high-school teachers to acquire their specialty a second time from the learner's point of view. The first, which should be used in every case, is to have professors of education who can take the pupil's point of view and become children again, just for that course. The candidate should then be required to present the subject-matter under those limitations. For successful results, professors of education must be found who are capable of taking the adol-

escent's point of view, men who are not desiccated, who have their own youth well in memory, and who subject their own methods to the touchstone of that memory. Such men will instruct the future high-school teacher to see how much he can possibly omit from every textbook, without impairing its logical sequence, and how much he needs to add to make that sequence comprehensible and vivid to pupils. The teacher should realize that the author of every secondary textbook is swayed, consciously or unconsciously, by what adult critics will say of its completeness and logical methods, and that there will consequently be introduced matter beyond the comprehension of the average high-school student. The teacher must learn to note and reject this adult matter.

5*b*. He should also be taught to repeat to himself with all reverence this prayer every morning before he enters the high-school room: "Give me this day sufficient sense and sympathy to realize that what appears to me easy, logical sequence, only because I am a specialist in that branch, may seem absolutely meaningless jargon to an adolescent. Make me to feel that one taste of victory over high-school subject-matter is worth a hundred defeats, yea, that victory and hope and continuance in school are adolescent synonyms, and that a general's fame is not built on the defeat of his troops. Teach me to be less wise in my own conceit and give me the social grace to realize that if I am to travel in the golden clime of adolescence, I must at least learn the language of that country and avoid what may seem to its inhabitants a barbaric tongue. Bestow on me the saving grace of humor sufficient to keep me from over-stressing any point and from becoming shrill. Grant me also the capacity to be as easily bored as the children of that rapidly changing land of springtime. And, finally, enable me every day to look through the eyes of adolescence at a new world bathed in a light that never was on land or sea, Amen."

6. The second method consists in giving candidates what our medical friends call "hospital practice" on actual adolescents. For the sake of the children, previous preparation should reduce to the least possible minimum the evils necessarily resulting from such a course. Some such practice is indispensable. This may be had (1) in a secondary school maintained by a university for that special purpose; (2) in the schools in the town or city in which the university is situated; (3) in distant high schools. For a careful study of what is actually being accomplished by the first two methods, Professor Dexter's excellent paper should be read. The third method has for some time been employed in an increasing degree during the last few years by superintendents and high-school principals all over the country. These inexperienced teachers are watched, advised, and given a chance as often as possible to visit the classrooms of the best teachers in the school. The majority of those who have had experience in secondary schools would probably agree that practice in teaching in the grades would not take the place of experience in the high school, and that the two schools must differ widely in methods. A study of the psychology of adolescence should make this point plain. The papers of Messrs. Barrett,

Bolton, Cook, DeGarmo, Kirk, and Martin will show some divergence of opinion.

7. In this connection, however, we should note that there can be no dispute about the truth that a high-school teacher's academic and professional training should be conditioned largely by the special subjects which he is to teach, and that practice in teaching Latin would not make a skilful teacher of physics.

Pedagogical hospital practice for teachers of adolescents, in some form or other, is as old as Adam. It is yet in its infancy in systematic scientific application in the training of secondary teachers. The next ten years will probably show what special secondary training-schools can and cannot accomplish. The members of this committee regret that these schools are not farther evolved at this time, and that the data based solely on practice in conducting them is at present so limited.

8. Every prospective high-school teacher should be encouraged to spend at least one post-graduate year in some university school of education, engaged in professional preparation for teaching. Where this is not possible, at least one-eighth of his under-graduate work should be devoted to such professional branches. This recommendation was submitted for criticism by a high-school principal to a group of twenty excellent men, all of them experienced high-school teachers.

> "Is this rule for men or for women?" sixteen of them asked.
>
> "For both," was the reply.
>
> "Well, this rule would have disposed of us," replied the sixteen, "for none of us intended to become teachers early enough to shape our college course in conformity with such requirements. If we had been compelled to take a post-graduate year, we should have done something else."

Their principal shifted uneasily in his chair, for he realized that among those sixteen men there were enough born teachers to make a reputation for almost any school. It may be true that comparatively few of the many born teachers ever enter the profession of teaching, even under the easiest requirements. Careful investigation should determine whether these same easy requirements do not drive out the fit teachers, under a sort of pedagogical Gresham's law, that a legalized cheap instrument, to be used on other people, will drive out a dearer instrument, in the same way that a debt will be paid in the cheaper money, if two standards are in circulation.

It is plain that in the case of men, such a rule should not be passed, unless as some of us think, it would be a step toward making high-school teaching as much of a profession as either law or medicine and as well rewarded. Even these desiderata would not be sufficient to tempt the best men unless their tenure of office was certain, unless they could have freedom for their different individualities, and escape the apron strings of too much supervision.

Many first-class women might conform to stringent requirements only because fewer ways of earning a living are open to them. It is certainly not the wish of this committee to suggest requirements which would keep the best

men from becoming high-school teachers. In Germany the secondary teacher must have eighteen years of preliminary study and practice; three years in the primary school, nine in the gymnasium, three in the university, one in passing the state examinations, one in the seminary, and one in trial teaching. Even then there are generally two applicants for every place, but there is no competition on the part of women.[1] The caste system in Germany is such, the population so dense, the opportunity of rising in varied ways so few, that the young men of the United States cannot be expected to be willing to follow Germany as a pattern.

Every secondary-school teacher ought to have as a part of his regular professional training either a course under a library expert or under someone capable of giving instruction in recommending general reading for adolescents. The future teacher should learn the point of view of different types of adolescents and be able to suggest books interesting to them all in all branches. No teacher ought to receive a high-school certificate unless he is able to recommend stimulating and interesting books on subjects as various as astronomy, inventions, history, animals, literature, adventure, poetry, flowers, Indians, and travel. He should know better than his pedagogy books like *The Prince and the Pauper*, *The Jungle Book*, *The Oregon Trail*, *Astronomy with an Opera Glass*, *Tenting on the Plains*, *The Bar Sinister*, *Lives of the Hunted*, *Hero Tales from American History*, and suitable poetry selected from a wide range. Boys and girls have, in the majority of cases, decided before leaving their teens what the bulk of the reading for the rest of their lives shall be, in fact, whether they shall read anything except novels. Librarians say that the majority of all reading is done by young people before twenty. The experience of the world, its joys and sorrow, are bequeathed to us thru books. By them, Shakspere, being dead, yet speaketh. Woe to the boy or girl who leaves the high school without a taste for reading. Every decade or so sees the hours of the laborer shortened. What shall he do with his spare time? This becomes a question of increasing importance. The saloon, the poolroom, and the card-table will have less attractions for the one whose teachers have given him a love for reading. The teacher who has not made a special study of reading for adolescents cannot do his best in implanting such a love. Unless he supplements this special training during each subsequent year of his teaching-life by reading at the very least three adolescent books, he will gradually lose both the capacity and the inclination to direct the outside reading of his pupils.

9. The professional training of the high-school teacher ought to show him the best methods of character-building, of establishing our boys and girls on firm moral foundations. More than anything else, this should be made the subject of scientific study. The teacher should investigate the neural basis of habit, and its relation to morality of the higher type. He should learn why

[1] Professor DeGarmo's paper (No. XV) on "The Professional Training of Teachers for the Secondary Schools of Germany" should be read in this connection.

"character," "regularity," and "thoroness" are largely synonymous terms. He should be taught how to select noble ideals from history, literature, and the life around him. He should know the tremendous power of suggestion for morality and immorality. He should learn what appeals especially to adolescents and he should skilfully plan to enlist their interests, their likes and dislikes on the side of morality. Some of the great masters of secondary schools have kept their pupils marching to the music of noble ideals until that way of marching has become a habit. The state certainly has a right to demand that, in return for the vast outlay for secondary education, the pupils shall come out of school with higher moral ideals than when they entered. Ethics and sociology should be taught together. A knowledge of what is ethical should be put in immediate practice in doing something for one's neighbor. If it is important that the academic knowledge of the high-school teacher should be recast and revised so as to render it capable of being assimilated by the minds of his pupils, it is far more important that everything connected with the high-school curriculum should be scientifically studied from the point of view of its effect on character. Such study has already proceeded far enough to prove that we have often put the greatest emphasis where it least belongs. During the next twenty-five years it is to be hoped that the scientific study of education will show vast progress in giving practical directions for building moral foundations which will withstand the floods of temptation and also show more forcibly that intellectual foundations alone are but sand. The nation is now demanding this of its educators more than ever before. There are already signs of progress in this direction, but practical ethics does not yet rest on as firm a scientific foundation as the intellectual processes in building bridges or improved methods in teaching chemistry.

10. For lack of space, a few additional points which the professional training of the high-school teacher should emphasize must be compressed into one paragraph. The candidate should learn something of school administration, since he must work with others and be a part of the commonwealth. He should know something of the evolution of the secondary school and also the evolution of the methods of teaching his own special branch. He should be able to orient the work of the entire school and to have a clear idea of what a well-rounded secondary school should accomplish. He should be able to weigh judicially the claims of both the so-called cultural and vocational subjects. He should read some educational classics and biographies of the great educators and catch from them on the personal side greater enthusiasm for his profession. He should recognize the importance of being thoro, the dangers of superficiality, "sight-reading," and of too hasty inference or shrewd guesswork. To this end he should have careful training in some one science, grow to respect scientific method, and learn that character and thoroness are closely related.

The chairman would emphasize the importance of reading all the papers which follow. This is necessary to obtain a well-rounded view, for no single

member of this committee has attempted to treat all the points involved in this comparatively new subject. The chairman desires to thank all the members of this committee for the interest which they have taken in this question and the hard work which they have given to it. He wishes specially to thank Messrs. Brooks, Dexter, and DeGarmo, who, with himself, were members of a preliminary executive committee. This executive committee read all of the papers, compared the points made, and studied for some time how best to frame a set of "Recommendations," sufficiently unified, it is hoped, to leave a clear impression on the mind of the reader. Without the unusually efficient work of these three men, the following "Recommendations" would never have taken such simple shape. The drudgery which they cheerfully consented to undergo to present something definite, as well as something acceptable to all the members, may not appear on the surface, but it was certainly drudgery. The chairman wishes further to thank Superintendent Brooks for suggesting, making, and verifying the numerical references in the "Recommendations" which follow:

To Dr. E.W. Lyttle, state inspector of high schools for New York and president of the Department of Secondary Education, 1905–07, the thanks of everyone interested in this subject are due. His zeal in the field of secondary education, his familiarity with it on both the theoretical and the practical side, and his sympathy with the work of this committee, which he appointed, made his suggestions and counsel invaluable to the chairman. Dr. Lyttle certainly can point to work done by the Department of Secondary Education under his leadership.

JOINT RECOMMENDATIONS OF THE COMMITTEE OF SEVENTEEN ON THE PROFESSIONAL PREPARATION OF HIGH-SCHOOL TEACHERS

The committee on the preparation of high-school teachers recommend:

I. That the academic preparation include the following elements:

A. A detailed and specialized study of the subjects to be taught.

The program of studies selected by each student should include work in subjects outside of those in which he is making special preparation, sufficient to give some insight into the different fields of knowledge and to avoid the dangers of over-specialization.

[1] Barrett, 2, 3; Brooks, 2; Brown, 2; Cubberley, 2; Halleck, 2, 4; Holland, 3; Hanus, 2, 3, 4; Judd, 3; Luckey, 8; O'Shea, 3.

B. One or more subjects from a group including history, economics, and sociology, which will give the teacher a proper outlook upon the social aspects of education.

Barrett, 6; Brooks, 4; Martin, 6; O'Shea, 4.

C. A course in general psychology and at least one from a group of subjects including history of philosophy, logics, and ethics, which will give the teacher a proper outlook upon education as the development of the individual.

[1] The references are to the paragraph numbers in the papers of this Committee. Only those paragraphs are numbered which fall under the heads given in these joint "Recommendations." Failure to number a paragraph does not imply that it is not important.

Bolton, IV, 2; Brooks, 11; DeGarmo, 4; Halleck, 1, 9; Hanus, 3; Judd, 5*a*; Martin, 6; O'Shea, 4.

II. That definite study be given to each of the following subjects, either in separate courses or in such combinations as convenience or necessity demands:

A. History of Education.

1. History of general education.
2. History of secondary education.

Barrett, 5; Bolton, IV, 2; Brooks, 4; Cubberley, 3; DeGarmo, 3; Halleck, 1, 10; Hanus, 6, 7; Holland, 3; Judd, 4; Luckey, 6; Martin, 7; O'Shea, 4.

B. Educational psychology with emphasis on adolescence.

Barrett, 6, 8; Brooks, 5; DeGarmo, 4; Halleck, 1, 5*a*, 5*b*; Hanus, 5, 8; Holland, 3; Luckey, 6; Cubberley, 3; Martin, 2, 3; O'Shea, 4.

C. The principles of education, including the study of educational aims, values, and processes. Courses in general method are included under this heading.

Barrett, 7, 10; Bolton, IV, 2; Brooks, 6, 7; DeGarmo, 1; Hanus, 4, 5, 8; Holland, 3; Judd, 5*a*; Luckey, 6; Martin, 2, 5; O'Shea, 4.

D. Special methods in the secondary school subjects that the students expect to teach.

Barrett, 12; Brooks, 8; Buchner, 3; DeGarmo, 2; Halleck, 3, 5, 7; Hanus, 4*a*, 4*c*; O'Shea, 3.

E. Organization and management of schools and school systems.

Bolton, IV, 2; Brooks, 9; Halleck, 10; Hanus, 8; Holland, 3; Luckey, 6; Martin, 3; O'Shea, 4.

F. School hygiene.

Brooks, 10; Hanus, 8; Holland, 3.

III. That opportunity for observation and practice teaching with secondary pupils be given.

The committee recognizes the difficulties involved in this recommendation, but believes that they are not insurmountable. Each of the following plans has proved successful in some instances:

A. The maintenance of a school of secondary-school grade that may be used for observation and practice.

B. Affiliation with public or private high schools so situated geographically that practice teaching can be done without interfering with the other work of the college course.

In addition to the above, the committee suggests that where competent critical supervision is possible, cadet teaching, in schools more remotely situated, may be attempted. In such cases, a teacher's diploma might be granted after a year's successful work as a cadet teacher.

Barrett, 10, 11; Bolton, IV, 2; Brooks, 12; Buchner, 1, 4; DeGarmo, 5; Halleck, 6; Hanus, 4*c*, 8; Holland, 2; Luckey, 6; Martin, 8; O'Shea, 5, 5*a*.

IV. That the minimum requirement for a secondary-school teacher be graduation from a college maintaining a four-year course and requiring four years' high-school work for admission, or from an institution having equivalent requirements for admission and giving equivalent academic scholarship.

A year of graduate work divided between academic and professional subjects is desirable. Discussions of the relative value of college and normal schools as training-schools for secondary-school teachers, are to be found in the references below:

Barrett, 6; Bolton, II, IV, 1; Brooks, 3; Buchner, 3; Cook, Entire paper; Halleck, 4, 8; Judd, 3; Kirk, Entire paper; Luckey, 2, 7; Cubberley, 1; Martin, 9; O'Shea, 4*a*.

V. That the study of subjects mentioned under II be distributed thru the last two years of the college course.

The proportional amount of time given to these subjects will vary with local conditions, but an irreducible minimum is one-eighth of the college course. They should be preceded or accompanied by the subjects mentioned in I, B, C. Recommendations as to the amount of time given to particular courses will be found in several of the accompanying papers.

Bolton, IV, 2; Brooks, 12; Hanus, 3; Luckey, 4; O'Shea, 4*a*.

Papers dealing with special topics have not been given paragraph numbers and are not included in the references above. They are as follows:

FREDERICK E. BOLTON

I. Requirements for High-School Certificates. II. The University and the College as Training-Schools for High-School Teachers. III. Standards in Germany. IV. Standards Suggested for American Schools.

EDWARD F. BUCHNER

The Professional Preparation of High-School Teachers in the Fifteen Southern States.

JOHN W. COOK

Capacity and Limitations of the Normal School in the Professional Preparation of the High-School Teachers.

CHARLES DE GARMO

Professional Training of Teachers for the Secondary Schools of Germany.

EDWIN G. DEXTER

The Present Training of Teachers for Secondary Schools.

J. R. KIRK

Will the Same Training in the Normal School Serve to Prepare the Teacher for Both Elementary and High-School Work?

Signed,

REUBEN POST HALLECK
STRATTON D. BROOKS
JOHN W. COOK
EDWIN G. DEXTER
C. H. JUDD
H. M. BARRETT
J. STANLEY BROWN
[1] E. P. CUBBERLEY
[2] PAUL H. HANUS
JOHN R. KIRK
FREDERICK E. BOLTON
EDWARD F. BUCHNER
CHARLES DE GARMO
E. O. HOLLAND
GEORGE W. A. LUCKEY
[3] GEORGE H. MARTIN
M. VINCENT O'SHEA

A SHORT COURSE OF PROFESSIONAL READING FOR HIGH-SCHOOL TEACHERS

Requests for suggestions for professional reading have been received from high-school teachers who cannot stop their work to go to schools of education

[1] Is not positive about making mandatory the history of philosophy, logic, and ethics.

[2] "Dissents from the seemingly unqualified opinion that all the studies under II should necessarily form a part of the prospective teacher's *undergraduate* study."

[3] Questions Number V.

or who cannot remain in these schools a sufficient length of time. It is one of the encouraging signs of the times to note the increasing number of high-school teachers who wish, in so far as is possible, both to remedy deficiencies in their professional training and also to grow in their profession. A brief list of books for this purpose is accordingly given. In the preparation of this list the chairman has had valuable assistance from a number of members of this committee, but no one member except himself is responsible for the list as a whole. While several books by members of this committee appear below, it should be understood that such books were in every case suggested by other members of this committee.

The brevity of this list should add to its value. Before the teacher has read very far, other books and references will be suggested to him and he will of his own accord search for a more elaborate treatment of certain topics. What the majority of teachers need is a start among the bewildering multiplicity of works on education. Where shall we begin? is a question which they frequently ask.

These books are recommended to teachers who are doing any branch of secondary educational work, no matter whether it is academic, arts and crafts, manual training, or commercial.

PSYCHOLOGY, GENERAL METHOD, AND PHILOSOPHY OF EDUCATION

James, *Talks to Teachers on Psychology*, also parts of his two-volume work on psychology (Henry Holt & Co.).
Judd, *Genetic Psychology for Teachers* (D. Appleton & Co.).
Halleck, *Education of the Central Nervous System* (The Macmillan Co.).
Thorndike, *Principles of Teaching Based on Psychology* (A. G. Seiler).
Adams, *Herbartian Psychology Applied to Education* (D. C. Heath & Co.).
Halleck, *Psychology and Psychic Culture* (American Book Co.).
Horne, *Psychological Principles of Education* (Macmillan).
Le Bon, *The Crowd: A Study of the Popular Mind* (Macmillan).
Galton, *Inquiries into Human Faculty* ("Everyman's Library" 1907, E. P. Dutton Co.).
Hall, *Adolescence, Its Psychology*, 2 vols., 1,373 pages. The one-volume edition, 379 pages, published under the title, *Youth: Its Education, Regimen, and Hygiene* (Appleton) will suffice for the average reader.
Bagley, *The Educative Process* (Macmillan).
McMurry, *Method of the Recitation* (Macmillan).
Hanus, *Educational Aims and Educational Values* (Macmillan)
O'Shea, *Education as Adjustment* (Longmans, Green & Co.).
Hanus, *A Modern School* (Macmillan).
O'Shea, *Dynamic Factors in Education* (Macmillan).

SPECIAL METHOD

DeGarmo, *Principles of Secondary Education* (Macmillan).
Vol. I, "The Studies;" Vol. II, "Educational Processes."
Bagster-Collins, *Teaching of German in Secondary Schools* (Macmillan).
Bennett and Bristol, *The Teaching of Latin and Greek in the Secondary School* (Longmans, Green & Co.).

Carpenter, Baker, and Scott, *The Teaching of English in the Elementary and Secondary School* (Macmillan).
Chubb, *The Teaching of English in the Elementary and Secondary School* (Macmillan).
Smith and Hall, *The Teaching of Chemistry and Physics in the Secondary School* (Longmans, Green & Co.).
Lloyd and Bigelow, *The Teaching of Biology in the Secondary School* (Longmans, Green & Co.).
Smith, D. E., *The Teaching of Elementary Mathematics* (Macmillan).
Young, *The Teaching of Mathematics* (Longmans, Green & Co.).
Bourne, *The Teaching of History and Civics in the Elementary and the Secondary School* (Longmans, Green & Co.).
——— *The Study of History in Schools*, Report to the American Historical Association, by the Committee of Seven, 267 pages (Macmillan).
——— Report of the New England History Teachers' Association, 299 pages (Macmillan).
Richards, *Manual Training* (Longmans, Green & Co.).

HISTORICAL AND DESCRIPTIVE, UNITED STATES AND GERMANY

Brown, *The Making of Our Middle Schools* (Longmans, Green & Co.).
Dexter, *History of Education in the United States* (Macmillan).
Luckey, *The Professional Training of Secondary Teachers in the United States* (Macmillan).
Bolton, *The Secondary School System of Germany* (Appleton).
Russell, *German Higher Schools* (Longmans, Green & Co.).
Paulsen, *German Universities* (Charles Scribner's Sons).

GENERAL HISTORY OF EDUCATION AND EDUCATIONAL CLASSICS

Monroe, *Textbook in the History of Education*, 772 pages (Macmillan).
Davidson, *History of Education*, 292 pages (Scribner).
Bosanquet, *Education of the Young in Plato's Republic*, 198 pages (Cambridge University Press).
Bryan, *Plato, the Teacher*, 454 pages (Scribner).
Davidson, *Aristotle and Ancient Educational Ideals*, 256 pages (Scribner).
Ascham, *Scholemaster*, 317 pages (D. C. Heath & Co.).
Woodward, *Vittorino da Feltre and Other Humanist Educators*, 261 pages (Cambridge University Press).
Locke, *Thoughts on Education*, edited by Quick, 240 pages (Cambridge University Press).
Rousseau, *Emile* (abridged edition, D. C. Heath & Co.).
Herbart, *Outlines of Educational Doctrine*, edited by Lange and DeGarmo, 334 pages (Macmillan).
Spencer, *Education*, 285 pages (Appleton).
Painter, *Great Pedagogical Essays*, 426 pages (selections from twenty-six classics; American Book Co.).

ETHICS AND SOCIOLOGY

Adler, *Moral Instruction of Children*, 278 pages (Appleton).
MacCunn, *The Making of Character: Some Educational Aspects of Ethics*, 226 pages (Macmillan).
Griggs, *Moral Education*, 352 pages (B. W. Huebsch, publisher, New York).
Sidgwick, *On Stimulus* (Cambridge University Press).
Forbush, *The Boy Problem: A Study in Social Pedagogy*, 194 pages (The Pilgrim Press, Boston).
Dewey, *The School and Society*, 129 pages (The University of Chicago Press).

Patten, *New Basis of Civilization*, 220 pages (Macmillan).
Giddings, *Elements of Sociology*, 353 pages (Macmillan).
American Journal of Sociology.

BOOKS HELPFUL TO TEACHERS IN RECOMMENDING SUITABLE READING TO HIGH-SCHOOL PUPILS

Hewins, *Books for Boys and Girls*, 56 pages (American Library Association, 34 Newbury Street, Boston).
Children's Reading: A Catalogue Compiled for the Home Libraries and Reading Clubs, Conducted by the Children's Department of the Carnegie Library of Pittsburg, 110 pages (American Library Association, 34 Newbury Street, Boston).
Field, *Fingerposts to Children's Reading*, 276 pages (A. C. McClurg & Co., Chicago).
Colby, *Literature and Life in School*, 229 pages (Houghton Mifflin Co.).
Griswold, *A Descriptive List of Books for the Young*, large 8vo, 175 pages (W. M. Griswold, publisher, Cambridge, Mass.).
Hanna, "One Hundred Books of Unqualified Value for High-School Students to Read"—published in the 1899 volume of the *Proceedings* of the National Educational Association, pp. 486, 487. This list is also included in a separate volume of eighty pages, known as *Report of the Committee on the Relation of Public Libraries to the Public Schools*, published by the National Educational Association, Winona, Minn.
Hall, "Youth," chap. viii, pp. 141–206, *Biographies of Youth* (Appleton).
Aldrich, *Story of a Bad Boy* (Houghton, Mifflin & Co.).
Bashkirtseff, Marie, *Journal of a Young Artist* (Rand, McNally & Co., Chicago).
Howells, William D., *Heroines of Fiction*, 2 vols., 513 pages (Harper & Bros.).
Richardson, *Choice of Books* (David McKay, Philadelphia).

EDUCATIONAL PERIODICALS

The School Review (especially devoted to secondary education) should be read regularly.
The Educational Review.
The Pedagogical Seminary.
Education.
The Manual Training Magazine, Peoria, Ill.

PAPERS ON THE PROFESSIONAL PREPARATION OF HIGH-SCHOOL TEACHERS

I

H. M. BARRETT, PRINCIPAL OF HIGH SCHOOL, PUEBLO, COLO.

1. It might be inferred from the subject of this paper that the professional preparation of the high-school teacher is not always satisfactory. I shall not object to the inference. Rather, I shall try, first, to furnish a bill of particulars in the complaint against the high-school teacher's professional training; second, I shall mention some of the reasons why this training is not all that it should be; and finally, if I can, I shall point out how the high-school teacher may secure the proper professional preparation.

The faults in the professional preparation of the high-school teacher may be grouped under three heads: First, although the high-school teacher has sufficient education, broadly speaking, he does not know how to teach. It is not long since it was assumed that anybody with a college diploma was fit to teach in a high school; and if he had taken high rank in his college classes then any high school was lucky to get him. The superintendent and principal,

at least, have long since been made to realize by abundant experience that a good student is not always a good teacher. In the light of this experience they have been chary about giving a try-out to the unseasoned graduate, if one may borrow a football phrase, and they have tried to insist when they could on successful experience in other high schools as evidence of ability to teach.

2. The second item in the bill is that the teacher who has anticipated his work and has undertaken to prepare for it has frequently devoted himself almost exclusively to the study of a single branch. He has gone in for science, or has taken everything in advanced mathematics that his college offered, or has spent considerable time in the study of Anglo-Saxon, has attended with enthusiasm all the classes in literature, and has devoted himself assiduously to the work in theme-writing and in the composition of sonnets. Thus prepared for his special work in high school, he comes to teach boys and girls to do the same thing that he has done. The specialist has studied not wisely but too well. If he be a science man he feels that he ought not to have to correct English in the notebooks of his pupils—and indeed he ought not; but when the need exists, as it does now and then, he cannot agree that every teacher should be an English teacher before he is anything else.

3. Finally, the complaint against the high-school teacher is that, even tho he could teach mathematics, science, English or what not, he cannot teach boys and girls. One principal puts it brutally that the high-school teacher has no sense. This is a hard saying, but there is directness and finality in the sound of it that carry weight. Ordinarily, the statement that a man has no sense is a tolerably sweeping condemnation; but when we examine the meaning of the word "sense" in this connection we find that it signifies about all that makes a man a master in any profession. A man may have the finest university training in medicine, but if he lacks sense he will not succeed as a physician; lack of sense in a lawyer will make a superior knowledge of the law of little value. The fact is that sense, fundamental as the quality appears, and fundamental as it really is, actually implies all that makes one a strong teacher, a great teacher. It may seriously be doubted, whether, after all, sense is not a gift with which one is born, rather than an accomplishment which can be acquired by training. An old professor of mine used to say: "There are some things which, if a man doesn't get before he is four years old, he never gets." I fancy that sense is one of these things. The French, who are polite, call it *savoir faire*, and so called, it sounds more like something which may be acquired by study and growth.

Most principals are apt to feel that the reason why the student fresh from college fails as a teacher lies in the fact that he unconsciously assumes that high-school boys and girls are young ladies and gentlemen. Technically, so far as age goes, and so far as the name implies nice young people, decently brought up by particular parents, they are young ladies and gentlemen; but mentally, for all the practical purposes of the teacher, they are still boys and girls. They are not at all ready for college methods of instruction. It will

not do for the high-school teacher to give a course of lectures and permit the pupils to take the instruction or leave it as they choose. If they choose to leave it the loss is theirs, true enough; but they must not be allowed to leave it.

The old masters knew their duty in this regard, and they did it—often with groanings on the part of the pupils that could not be uttered. There was a certain crudeness about their methods which would not be tolerated today; caning and flogging were long the effective means of inducing interest in study which the Herbartian doctrine does not approve. Yet the old masters understood their problem well enough, no matter what we may think of their method of solving it. They knew that boys and girls cannot be left to themselves to study or to take the consequences in a life of inefficiency in the vague future. They knew human nature well enough to understand that the doctrine of future punishment, however well founded, is not an efficient cause of present effort with men and women, much less with boys and girls. And in their own primitive way the old masters undertook to supply an immediate substitute for future punishment, unpedagogical, no doubt, but often effective in accomplishing results.

The specialist, too, because he is a specialist, has lost some of the advantages possessed by the old master. If the boy does not do well in his particular subject, the boy to him is a ne'er-do-well. The specialist knows nothing about the pupil except what he sees of him in his own class; and if the pupil fails there he is condemned utterly. The principal who sees this situation often feels that it would be well if the specialist were required to teach more than one subject—well for the pupil and well for the specialist.

4. The limitations of the college graduate and also the limitations of the university-trained specialist are summed up in the indictment that they do not know boys and girls and therefore they do not know how to deal with them. These teachers are too apt to shift upon others the responsibility for a pupil's shortcomings, to throw it back upon the grade teachers, or to attribute it to some lack of rigid discipline in the high school as a whole. Often one hears such teachers lamenting the fate which condemns them to the annoyance of petty discipline, and weakly wishing for a college position. Not till they learn the joy of being alive among boys and girls and of watching them grow under their hands into men and women, can these hope to be high-school teachers in the real sense. Now, they do not realize that it is folly to place responsibility for poor work on other teachers, or, indeed, upon the pupil himself. Here is the pupil with all his imperfections on his head. It is up to the individual teacher to train that pupil to do the work in his class and make a man of him in that work. The grade teacher knows that if any one of her pupils fails in the next higher grade it is a reflection upon her. Much more, however, does she appreciate that if he does not do good work in her grade nobody can be blamed but her. The unsatisfactory pupil is a perpetual problem to her, and there is more joy in her heart over the successful solution of one such problem than over ninety and nine that need no solution. Every time she

solves such a problem she knows that she has proved herself a real teacher; every time she fails to solve such a problem she must feel that she has measurably failed as a teacher. How, then, thro professional preparation, can the high-school teacher fit himself to do the work before him, to assume the responsibility of teaching, not physics, or English, or mathematics, but boys and girls?

5. The high-school teacher ought of course to know the history of education and the history of the development of the secondary schools. It is not quite clear precisely how this is to help him solve particular problems in training boys and girls; but, intelligently used, the knowledge and appreciation of the present in the light of the past should be of real value in giving the teacher breadth of view and grasp of the work as a whole.

6. Educational psychology ought to have its place in such a course of training. Yet here, too, the value of the study will be general rather than particular; it will be more valuable for the man himself than can be pointed out for specific use in his daily task. An attempt to apply such knowledge narrowly and rigidly will almost certainly make the teacher unpractical and pedantic, and will be attended with ridiculous and even with disastrous results. This suggests the need that the high-school teacher have, as a prerequisite to his special training, the broad and liberal education represented by a four years' college course. Such an education ought to give him the habit of seeing "great things large and little things small," of "seeing life steadily and seeing it whole." If one might particularize in this digression it would be to say that in his college course the teacher ought to get a great deal of practical value out of the pursuit of a thoro-going course in sociology.

7. With this general education to fortify him, it ought to be safe for the future high-school teacher to give some time to the study of pedagogy. Without the general education, there is great danger that the teacher may fall into the error of thinking that pedagogy is the whole thing in education. To the practical teacher, it seems just to exclaim, modifying slightly the familiar phrase of Madame Roland, "Ah pedagogy, how many crimes are committed in thy name!" Pedagogy isn't much of a science as yet. It has in it commonly too many glittering generalities, too many half-truths that the narrowly educated teacher accepts as absolute and comprehensive.

8. It is scarcely necessary to mention as a book which the high-school teacher should include in his course of professional training, Dr. Stanley Hall's great work on *Adolescence*. No book exists which deals so minutely and so comprehensively with the life in which the high-school teacher works.

9. It is not likely that any educational expert will object to the course of study thus outlined as too extended; if anyone cares to elaborate it the writer of this paper will not seriously object. Yet the element which the writer regards as most important in the proper professional preparation of the high-school teacher has not been mentioned. It is the element of experience. In teaching, quite as much as in any profession, trade, or business, we learn

to do by doing. Nothing can take the place of actual work in the schoolroom. The practice school under supervision will not answer. It is good so far as it goes, but its conditions at best are more or less artificial.

10. Here perhaps might be mentioned the normal school as a training-place for high-school teachers. The normal school would undoubtedly serve to supply some of the common deficiencies in the high-school teacher's training. It should never be accepted as a substitute for the college, for with most high-school pupils who are to continue study after graduating from high school the college is the next step, and the high-school teacher will not do the best for these boys and girls unless he knows intimately what college is. The training furnished by a good normal school as supplementary to the teacher's college course would be quite worth while, for it would bring the teacher closer to the work before him. It is a mistake to suppose, however, that normal-school training can take the place of actual experience. Here, as in the university, conditions are inevitably artificial, though the study of methods as taught in the normal school will be most helpful to the college graduate who intends to teach. But the teacher cannot do his best or develop those qualities and that skill most needed in a teacher while a critic is looking on and taking notes of his faults in manner and method. A brief experience of a few weeks or months in a room of boys and girls somewhat trained to habits of work by others furnishes small opportunity for the use of initiative on the teacher's part. The teacher in the making needs to be confronted by conditions, not theories. Such conditions only will force him to summon to his command those methods and expedients which, so far as they are of real value, are in every teacher matters of personality. Something, though generally very little, the teacher may gain by watching the work of good teachers; very little indeed, unless it be appropriated in a condition of mental and spiritual hunger on the teacher's part, and assimilated and made a part of himself under the healthy normal conditions of real work for which he is actually responsible and which is genuinely his own.

11. In view of these considerations, then, the high-school teacher should have a year or two year's experience in grade schools, where as an actual and responsible teacher he should see growing under his own hand the mental and moral character of a school of boys and girls. In the grades the high-school teacher will have learned intimately and accurately a great deal of the method of thought and of the feelings and motives of the boys and girls which he is to teach in high school. He will have some practical notion of the proper and legitimate use of the word apperception, which without this experience, he might be prone to regard as one of the charm words with which the child-study priests are wont to cast a spell upon their converts. In the grades, if the teacher is to do anything at all, he must first divest himself of college methods of instruction and meet the boys and girls on their own ground. He must recognize also, because he directs all matters of discipline and study, that he, and he alone, is responsible for all the conditions in his school-

room, for the pupils' attitude toward work, and for the growth and development of all the pupils under his charge. He may not steel himself to endure an ill-trained, disorderly class for one recitation period, while he looks forward to the hour when he shall have a class and has learned habits of good behavior and systematic work from some other teacher. This is where the teacher too often fails who serves his apprenticeship in the high school, for here the road to success is long and hard, unless unusual natural ability combined with a large measure of good luck forces the truth home to him. In the grades the conditions will compel him, in the phrase of Carlyle, to make truce with necessity, which the sage of Chelsea points out to be the foundation of all success.

The poor high-school teacher as a rule lacks that professional training which puts him at home with his pupils. Nor can he easily gain this part of his training in the high school, where the pupils are at the adolescent stage. They are awkward and diffident, mentally as well as physically. A few years earlier, in the grades, these pupils would have made themselves at home with the teacher; now it is the teacher who must take the initiative and take it easily and naturally. Nowhere in the child's life is the need so great for the trained eye and the steady hand as at the high-school age. The teacher who tries to gain these in the high school is like the pilot who should take his first lessons at the wheel in steering a boat through the rapids. The high school is a poor place to gain the first experience in teaching. The conditions are too complex.

Objections may perhaps be made to this method of professional preparation on the ground that the teacher who is to do high-school work cannot afford, on account of the poor pay, after having invested in a college education, to accept a position in the grades. The answer is that this is the final step in the teacher's training. This work in the grades ought to be far more valuable to the teacher than to the school. If the superintendent is willing to give the man or woman fresh from college a chance to teach in the grades, the man or woman ought to be glad to get the place; and ought to strive conscientiously to do as much good and as little harm as possible to the pupils intrusted to him. The young doctor with four years of college and two or three years of medical school behind him is glad to get a place as interne in a hospital and work a year or two for his board in order to get the practical side of his profession. The young lawyer, having earned his B.A. and his LL.B., is glad to work at small pay for a successful law firm, and plead his first cases in a justice court, in order to learn the routine of office and court work. The clergyman just out of the seminary is fortunate if he can get an appointment as assistant in a good charge and learn here the rudiments of his profession. The most promising of the men who graduate from the technical schools are eager to begin at the bottom in the factory or in the railroad shops and learn the business from the beginning; they understand that it is a valuable and often a necessary step toward the manager's office or the private car to have worn overalls and carried a dinner bucket. So the schoolmaster with all his degrees and his special study may well serve his apprenticeship in the grade school-

room at a very small salary, realizing that for the first two years he is much more of a learner than a teacher. He needs to approach his work from a direction altogether different to that from which he has approached it before. He has studied historical facts and scientific theories; now he must get down beside the boys and girls and look at things with their eyes, see the world as they see it. Only so can he use his facts and theories to good purpose as a teacher. The course in education at the university is of great value to the experienced teacher; it is commonly worth little to the college graduate without experience in the schoolroom.

12. To put it briefly: Let the college student who is to teach in high school specialize somewhat in the lines of his chosen calling during his last two years in college. Let him study the history of education, particularly of secondary education, educational psychology, pedagogy, methods of teaching his special subject, and the relation of his subject to the whole work of the high school; let him learn what Stanley Hall can tell him of the adolescent period. Then let him get a place in the grades and learn how to teach boys and girls, how to understand them, and how to work with them. After two years of this work the teacher ought to be ready for work in the high school. He will then bring to his task a fund of school lore not to be found in books or in courses of education; he will even have accumulated a store of sense. This, from the standpoint of a high-school principal, is the proper professional preparation for the high-school teacher.

II

STRATTON D. BROOKS, SUPERINTENDENT OF SCHOOLS, BOSTON, MASSACHUSETTS

1. A somewhat extended observation of teachers causes me to believe that one of the important elements leading to ineffective teaching in the secondary schools of the country is that the teachers fail to get the pupil's point of view. They do not see the subject taught as the pupil sees it. A large majority of them give greater attention to the logical development of the subject than to the development of the logical powers of the pupil. This is due to the fact that the training of these teachers has been largely, if not wholly, academic, and that their professional training, if any, has been incidental and superficial. Academic training, as here used, means the study of the subject for the sake of mastering it as a subject in its logical and epistemological relations, while professional training, as here used, means the study of the subject with reference to its adaptability to use as an instrument for developing and training the mind of the pupil. Such professional training will include the supplementary study of all allied or additional subjects that will aid in this purpose. To the extent that academic study of any subject prepares a teacher to use that subject as an instrument of child development it is professional in its result.

2. Since without an academic knowledge of his subject the teacher cannot teach that subject, it follows that the academic pursuit of knowledge must be a fundamental part and parcel of professional training. The amount of special study in any single line will vary with the nature of the subject. Four years of work in Latin beyond that of high-school grade is not too much to require for a teacher of Latin, nor would four years of work in sciences as a whole be considered too great a requirement for a teacher of science. For a teacher of chemistry, however, suitable preparation on the academic side may require less than four years of work in chemistry alone, though the total time given to scientific study by such a teacher should not fall below four years of college work. In general, the greater the academic accomplishment of the secondary-school teacher, the better his teaching will be; provided this academic study is so tempered and modified by professional study as to enable him to select from his greater store of knowledge those items of most use in the development of his pupils. The evils of over-specialization are not those of excessive academic preparation but those of insufficient professional preparation. The minimum requirement for a high-school teacher should be graduation from a college course in which special study has been given to the subjects that the candidate expects to teach.

3. In addition to as complete and accurate scholarship as can possibly be obtained, the training of the secondary-school teacher should include many items that will give to this academic knowledge its greatest efficiency as an educational instrument. These elements may be properly termed professional. Some of the more important ones are as follows:

4. A teacher should have a knowledge of the fundamental aim and purpose of education. This involves a knowledge of our present civilization and the obligations of the citizens of it. Even a partial understanding of the present ideals of education can be arrived at only by considering the process by which they have come into existence. It is necessary that the teacher understand the more important epochs in the development of civilization and the means adopted in each to educate the citizens therefor. Without this knowledge the teacher must accept the statements of others as to what constitutes the aim of education, and will be unable to select from the different claimants those having the largest basis in human experience. The teacher's professional course must therefore include a study of a large portion of the *history of the world* with special emphasis upon the part of education therein and with some consideration to the *history of secondary schools*.

5. The teacher must be thoroly familiar with the child, not only to the extent of understanding the laws of his development, but what is more important to the extent of appreciating the child's point of view, and being able to look upon the world as the child looks upon it. Study alone cannot give this last. The sympathetic attitude is not based solely upon knowledge, but is rather ingrained in the character. The teacher who is most analytical, who most clearly separates and picks apart the mental machinery of childhood, is

likely to be the least sympathetic and so most often fails in the schoolroom. It is true, however, that given the sympathetic attitude, this sympathy gains in point and purpose from a complete understanding of the needs of the child. The increase in teaching power that the study of psychology and the consideration of the facts of adolescence will give to the teacher attuned to the appreciative attitude is immeasurable. *Psychology, with emphasis on adolescence*, must therefore be included in the teacher's professional course.

6. The final goal and the point of departure being known, the major lines of educational procedure are thereby determined. The teacher who has decided what he will consider the fundamental aim of education, and who appreciates the condition and methods of development of the child, has a standard for judging the truth or falsity of educational principles that is not possessed by one whose ideas of either of these subjects are hazy and indefinite. The professional study of a teacher should therefore include the full consideration of *the principles of education* as determined by the nature of the child and the purpose of education.

7. After such a study, intelligent consideration may be given to the adaptation of the subject-matter of instruction to the needs of the pupil so that by selection and modification this subject-matter may be presented in the way that will most rapidly advance the child toward the desired end. *The general principles of method* will therefore find a place in the teacher's professional course of study.

8. The academic study of the teacher will give him a knowledge of the subject-matter of instruction, but his attitude toward it will be that of the adult mind, and his conception of it that which will make it useful for other purposes than educational ones. To this academic knowledge of the subject the teacher should add a professional study of it by means of which he will determine what aid it will give to the general purposes of education; what portions of it are possible of acquisition by the child; in what order these should be presented so that the child's development will be most helped; by what methods it may be made to conform to the child's point of view; to what extent it must be accommodated to the general principles of methods; and what special devices and applications the experience of years has shown desirable and effective. Of quite as much value as all this, his professional study should show him what not to do and enable him to avoid the repetition of experiments long since shown to be detrimental. The professional course should include, therefore, a study of the *special methods* of instruction in the subjects to which the teacher expects to give the major portion of his attention, together with the *history of the teaching of that subject.*

9. If all the preceding could be accurately determined and carried into effect we would have the ideal. Unfortunately the ideal is unattainable, and the teacher who fails to accommodate his ideals to the necessities of his work will have his failure charged up to his being a mere theorist. We are not alone in this world and not only must all the preceding be determined in its applica-

tion to many pupils rather than to one, but it must be applied by a teacher working with other teachers and instructing many children at the same time. All that he does is but one additional element in the large number of influences at work upon the children, and any theoretical determination of what ought to be produced must give way to the clear conception of what is really produced. The modifications and adaptations that numbers render necessary must have consideration, and no teacher is educationally equipped who has not given careful thought to the necessities of system and organization, so that in so far as possible their advantages may be preserved and their disadvantages avoided. Quite as much for teachers as for supervising officials a study of *school organization and management* is a necessary part of the professional course.

10. To give attention to the moral, mental, and social progress of the child will be of small value if we do not at the same time make sure that he is surrounded by conditions that render possible a healthy and vigorous physical development. The enforcement of compulsory education carries with it the maintaining of proper hygienic conditions. The daily routine of schoolwork will include careful attention to *school hygiene* and instruction in this subject should be included in the professional course.

11. With such professional equipment the teacher is prepared to start his work with a clear understanding of his problem and can derive the highest benefit from his experience. But to start with such an equipment is not enough—it must be kept. The teacher who falls behind the times is a clog upon civilization at the point of greatest hindrance. Education is a live, vigorous, growing subject, and the teacher must know the lines of that growth. For this he must depend largely upon his reading, but it must be reading with discrimination. Every age has brought forward some theory of education that has been followed by large numbers for a considerable time before its fallaciousness became apparent. Every month the educational journals of the present time set forth some man's idea, promulgate some new theory, propose some new device. Some of these are good and will in time become the commonplaces of education; some have elements of good, some are wholly and completely bad, and tho attractively presented, are based upon a false philosophy and must be ultimately discarded. To read educational literature understandingly, so that the true may be sorted from the false, demands a logical and philosophical training. The teacher not trained in this becomes a mere follower, quite unable to tell whether his leader is an educator or an impostor. The course in professional training must, therefore, include sound training in *logic*, *philosophy*, and *ethics*.

12. The order in which the elements of professional training have been named is not intended as indicating the order of acquisition. The training in logic and philosophy that will be a protection against false theories of education after graduation will also be of great service to the pupil as an undergraduate, and its elements at least should come early in the course. It is

likewise undesirable that the theoretical study of the principles and methods of education be separated entirely from their practical application. Especially for those who have no experience as teachers it is highly desirable that during the period of training they have access to a school for observation and practice. Even those with experience find great profit in teaching under skilful criticism. The professional course should include, therefore, some experience in *practice teaching*.

13. Such a course of professional training as here outlined cannot be conducted with any high degree of success under the direct domination and control of the regular college or university faculty. The attitude of the college professor is properly and necessarily academic. His attention both as a student and teacher has been so long turned exclusively to the academic side that the case is rare indeed that he is competent to offer professional instruction of even medium quality, yet he is seldom conscious of this and looks with contempt and suspicion upon the efforts of the department of education to discuss how to teach a subject about which it knows academically so much less than he does; nor does he look with favor upon allowing another department to teach in any way a subject that belongs to his department. Education is, however, an all-inclusive subject, and the material of the department of education embraces everything in all the other departments, tho from an entirely different point of view and for a different purpose. If must have free range thru all the field of knowledge unhampered by any personal or departmental prejudices. There are great advantages derived from close correlation with a college or university, but professional training in its best form is possible only when the department of education is large enough to attain to the dignity and organization of a separate college, to have its own professors, and to dictate its own policy.

III

J. STANLEY BROWN, SUPERINTENDENT OF JOLIET, ILL., TOWNSHIP HIGH SCHOOL

According to my scheme this subject is fairly treated under the following heads:

(1) Physical. (2) Mental. (3) Psychic. We have for a long time rejected the notion that the valedictorian of his class is the man from whom we may expect the greatest returns, since it must be conceded too often that his superiority rests in a trained mind only. Symmetry, balance, poise, or what may be put into phrase all-round development, is the acme of desire in the preparation of teachers for secondary schools.

1. The physical man demands the best and most careful training the college and universities afford, because it must be the setting for all that is ever accomplished by the individual. A carefully developed physique will often meet the deficiency existing in other directions. Many of the struggles which

teachers seem called upon to endure are physical. Headaches, deafness, impaired vision, abnormal digestion, irregular appetite or entire loss of appetite are a few of the physical defects which result from our failure either to use the knowledge we have or to secure the knowledge we ought to have. Most disagreements between teachers and students in schools and colleges of all grades may be traced, by proper analysis, to physical causes.

It ought to be a part of every teacher's daily gospel to be able to say that every organ of his body is performing its normal function. If our daily attention to the physical were heeded half so well as that to the mental, we would certainly have fewer teachers with the rheumatic type of mind.

That the physical is the most fundamental and ought to act as a setting for the other two ought not to be questioned. The foundation must always precede the superstructure in the course of construction. The furniture, the adornments follow after the foundation, walls, etc., have been completed, and must ever be the sequence in human, magisterial development if we would accomplish the most with the material at hand. When we have learned to give the proper attention to the physical, sarcasm, bitterness, scowls, impatience, extreme nervousness, irritability, etc., will very largely disappear and in their places we shall find encouragement, sweetness, pleasant smiles, patience, well-balanced nerves, etc.

If we had to choose between a well-developed physique and a modicum of mental training, or the reverse of these two things, we would, without hesitation, choose the former for our boys and girls. Many of us who have positions of responsibility have been preaching with others, "send the whole boy to school; educate the whole boy." But when the boy came to school we gave him books, or, perhaps, we excused ourselves by saying, "this is the kind of training I had and this is good enough for these boys."

If we wish teachers to teach the whole boy we must demand that the teacher himself shall be educated in the threefold sense I have mentioned.

We as teachers are much inclined to teach as we were taught. The water does not rise above its level. We must teach by example as well as by precept. It is not enough for the faculty to put off the preparation of physique by saying this belongs to the football coach, because it is most likely needed by all other members of the faculty more than by the athletic coach.

Let boards of education demand good physiques as well as university-trained minds and responsive souls and all will bestir themselves to meet the conditions. If we accept Emerson's statement that "the test of civilization is not in the census, nor the size of cities, nor the crops, but the kind of men the country turns out," teachers ought to have good bodies as well as good minds and souls.

In addition to the more general development of the body, teachers ought to be participants in some outdoor exercises, such as walking, running, jumping, horseback riding, bicycle riding, tennis, basket-ball, base ball, rowing, hunting and other kinds of physical exercise. I am quite persuaded that no one

except a cripple should be graduated from college until he has learned to swim. This would mean that a very large per cent. of teachers in the secondary schools would at least know how to swim. If we teachers paid more attention to the development of the physique we would have better teachers, better schools, and much less friction in the management of the schools.

2. What shall be the scholastic training of the mind of this teacher for secondary schools is, in the minds of some, considered to be the most important, in the minds of others the all-important, but, in our judgment, on a parity with the other two.

Other observations show us that more teachers are failures because of insufficient training than from extra sufficient, and yet we maintain that overspecialization by secondary-school teachers tending to make the subject taught the center of greatest importance and *not* the boy taught is distinctly detrimental. The day has gone when an indulgent public applied the name "teacher" to one who performed the function of a condenser and distributer of knowledge. We are not content with a wooden, mechanical, commercial type of teacher. The teacher today must be a live wire with an ever-increasing current, and that in order to meet the present demands with a fair degree of satisfaction. The secondary teacher ought to complete the four-years' course in a secondary school, four years in a good college, and then take a year of professional training either in a normal school or school of education. The preparation cannot continue to satisfy, however, unless all the best in pedagogical literature is constantly sought and appropriated. It is often posited that a teacher in high school cannot have too much preparation for his work, but I am convinced that the completion of work for the doctor's degree is not desirable for one who expects to teach secondary-school students, because to do well in such work the field must be very narrow and the effort intense. There can be little or no thought given to boy pedagogics if one's whole thought is given to the subject, and hence, we incline to give to the Ph.D. earned *in cursu*, a place in college or university, but not in secondary schools as most are conducted at present.

Foreign travel is very desirable for secondary teachers because it renders real so much that has hitherto been admired in our college or university training, but has to be limited to our narrow experience. Seeing a great mountain or a magnificent cataract forever fixes the concept as no amount of reading or oral description can do. I would not make this mandatory but it ought to be held out as an inducement to become worth more in public service.

We have spoken in the main concerning the scholastic preparation before regular service, as an instructor begins, but no one who has had any experience in teaching or who has even observed the work of the teacher would think that this is anything but the beginning of preparation, and is simply intended to meet the first general requirement. The man or woman in the teaching profession who does not see to it that his or her preparation to do effective work increases year by year is scarcely worthy to belong to the profession, and so

the leaders in educational advancement must read the best journals, study educational movements at home and abroad, visit the best schools of any and all grades, attend teachers' conventions, pedagogic clubs, do correspondence work along lines not touched by the universities ten years ago, and withal keep abreast of the times.

The teacher's preparation must keep pace with the preparation of the men and women of other professions. The best schools of law and medicine require six, seven, or eight years of college and university above the high-school course, and the tendency at present is toward an increase rather than a diminution in the work. The teacher must either keep up with the highest and best demands of the times, or be relegated to a position of constantly diminishing worth.

3. Let us turn now to the third phase of this subject. The moral force of any teacher among students is manifested much more in what he really *is* than in what he really does. Teachers are too often looked upon as negative forces simply because they refrain from doing something whose moral quality is mentioned and yet do nothing positive and aggressive to take the place of the injurious act.

Moral character, psychic force, does not need expression in word, and such expression would often be ineffective because these things do not easily lend themselves to description.

Honesty, justice, love for a square deal, must find a place in the character of the teacher if he is to create and maintain among his students an atmosphere above reproach in his dealings with all the vexed and perplexing questions that may come up. Since we are a Christian nation, and since religion is the recognized basis of soul culture, religious training should be as carefully secured by the secondary teacher as training of mind or body We are sometimes prone to forget that great paragraph in the famous ordinance of 1787. "Religion, morality, and knowledge being necessary to the perpetuity of a free government, schools and the means of education shall forever be encouraged." Our fathers placed religion *first*, morality second, and knowledge third. We need to return to the doctrines of our fathers. In our scheme of preparation for teaching we are inclined to give place to ethics, or temperance, or to a few lectures on purity, when we ought to stand for the weightier matters of the law. Setting aside the question of where this preparation in morals, soul culture, and religion may be secured, whether at home, in church, in school, or in all, we must admit that these qualities are very vital and must be emphasized in the preparation of the teacher. The kind of man we turn out will be woefully deficient if he lacks moral character and real religious attitude of mind.

Jesus, whose teaching we look upon as the best known in the Christian world, was the greatest teacher the world has ever seen or known. There is no great pedagogical scheme that cannot be traced directly to the methods and teachings of Jesus. If we teachers could teach as he taught, we, too, could revolutionize the world in three years or less. Let us then incul-

cate this teaching as representing the best in character building, psychic culture, and ethical dogma.

We have tried to show that the preparation for teaching in secondary schools ought to show a symmetrical development, that this development should include body, mind, and soul; that proper physical development should mean good digestion, good nerve power, good endurance, good disposition, good organic functioning, and a cheery, responsive individual; that the proper development of the mind may be met by graduation from secondary schools and association with secondary-school people; by graduation from college, together with the association of the college; by completing either at a school of education or a good normal school one year's work in professional courses. Added to this scholastic preparation may come foreign travel, pedagogic study in paper and magazine, attendance on school conventions, clubs, etc., and these with a view to keeping abreast of the times.

Finally, and in many respects most important, is the psychic preparation which has fundamentally to do with the religion of Jesus. Whether obtained in the school, the home, or the church, it is vital in the development of the highest type of teacher in the Christian man or the Christian woman. When we have carefully directed the training along these three lines which must run parallel with one another, we have done what seems best in the production of a symmetrically developed teacher.

IV

ELLWOOD P. CUBBERLEY, PROFESSOR OF EDUCATION, LELAND STANFORD JR. UNIVERSITY

The secondary school is pre-eminently the place where the boy or girl is brought into contact, not only with new forms of knowledge, but with new ideas, new ideals, and new methods of work and of investigation. It is the place for the broadening of the boy or girl in culture, appreciation, and insight, no less than in knowledge. It is these new ideals, new methods of work, and increased culture and appreciation which give point and effectiveness to the whole secondary-school training. While they are inseparable from knowledge, they are worth even more than the knowledge which the school imparts.

When one thus considers the secondary schools, either from the point of view of the needs of the adolescent or from the point of view of the subject-matter to be taught, one can scarcely overemphasize the importance of the proper preparation of the high-school teacher. Just as we emphasize the need of broader knowledge and culture for the teacher in the elementary school, in order that she may know more than she is expected to teach and be able to make her teaching broader than the mere course of study or the textbook she uses, so must we insist that the teacher for the secondary school shall know more and shall have had a broader and more extensive training than that offered by the secondary schools themselves or by the normal schools of the state.

1. Much of the work of the high school of today, with its elective courses, many subjects of instruction, and advanced instruction along certain lines, is fully as advanced as that done in the first year of the college course. Unless the teacher in the high school has come in contact with men who are masters of their subjects, has caught something of the masters' spirit of dealing with the great truths that lie in this field, and has learned something of that method which, after all, is only organized common sense, which men of larger scholarship apply to the solution of difficult problems, he is not likely to carry much of a message to the young people who come under his direction in the secondary school. This practically demands that the teachers in our secondary schools shall be college graduates, and shall have prepared themselves specially for the work which they propose to do. The secondary school itself does not offer such opportunities, and our normal schools, devoted as they are and ought to be to the preparation of teachers for the elementary schools, cannot adequately give such training.

The secondary-school teacher is distinctively in need of three things, viz.: (1) broad general knowledge; (2) special knowledge, and (3) professional knowledge. Other things being equal, the broader the teacher's general knowledge the more useful he will be. This general knowledge, or broad liberal culture, is largely a product of opportunities and experiences. Larger educational opportunities in an atmosphere of scholarship and culture, with travel, are the best means of securing it.

2. Special knowledge of an advanced nature in the fields in which the candidate proposes to teach is an absolute necessity. It cannot be emphasized too much that the person who desires to teach in our high schools must know that which he is to teach. That fair or indifferent successes are made today in many of our high schools by teachers who are teaching subjects which they have made little or no preparation to teach is no argument against the principle. Where such teachers are employed one generally finds that the community lacks proper standards as to what high-school education should be, or sufficient funds to properly maintain a high school, or both. One of the best guarantees for successful teaching, tho by no means an absolute or a sufficient one, is that the candidate shall have made careful preparation for the work of instruction in a given subject. One of the greatest weaknesses and reproaches of the American secondary schools today is the altogether too common lack of any adequate preparation on the part of the teachers, and the general indifference of the state in the matter.

3. In addition to general and special knowledge, the prospective teacher needs professional knowledge. By professional knowledge is meant professional preparation for the actual work of instruction and a professional attitude toward the work of the public secondary school. To this end the prospective high-school teacher should be required, during the last two years of his college course, to make a somewhat general study of the work and problems of public education in a democratic society such as our own; the work, purpose, and

special problems of secondary education, with some comparison with conditions in a few European states; the psychology of instruction and of the adolescent period; special teachers' courses in the subjects in which recommendation is sought; and some practical experience (how much is needed will vary greatly with different individuals) in instruction and class management. It would be well if the candidate, in addition, should know something of the history of education, and especially the history of education in our own country. I place the history of education after the others because it is largely cultural and inspirational instead of technical.

One of the most important legislative steps to be taken by most of our states in the matter of certificating teachers is the complete separation of the credentials necessary to teach in a high school from those necessary to teach in an elementary school, and the erection of distinctly higher standards for the high-school certificate. In view of the possibility of a six-year high school becoming somewhat general the high-school certificate should not be limited too closely as to its validity, but the elementary-school certificate, of any grade, should never be valid for instruction in a high school.

In the erection of such a special certificate for high-school teaching we obviously cannot depend upon the written examination. The standard of competency in general, special, and professional knowledge set above practically demands that the secondary-school teacher shall have had a college education, or its substantial equivalent. To examine the candidate on the subjects studied in college would be not only almost impossible, but ridiculous as well. To attempt to enforce the higher standard by an examination given on the subjects to be taught in the high school will also fail, for the reason that the high-school graduate, fresh from his studies, can almost always pass the examinations more easily and with better grades than the college graduate. The result will almost always inevitably be that in certain localities there will not be a college graduate in the high schools. This was clearly the experience of California under the old optional examination plan, and was one of the strongest arguments which led to the abolition of the examination for the high-school certificate. The only safe way to do is to make the possession of a degree from some reputable college an absolute prerequisite for high-school teaching, and to grant high-school certificates only to those who, in addition to the degree, present evidence of special and professional preparation for the work of teaching in secondary schools.

In many of our states the absolute enforcement of such a requirement would not be possible at present, but in almost every northern and western state a movement looking in that direction is possible now. The first step in the process is the definite recognition of secondary-school work as a field which demands special and additional preparation, and the separation of high-school certificates from elementary certificates. The former should then be based on higher educational standards, and college diplomas and other evidences of preparation should be recognized as the full equivalent of the subject-

matter examination. The second step in the process, to be taken as soon as the supply of properly educated and trained teachers equals the demand, is to diminish in frequency and importance and finally to entirely abolish the subject-matter examination and thus make the possession of evidence of proper education and training a prerequisite for the granting of the high-school certificate. When such conditions come to prevail somewhat generally, and not until then, can we be said to have an educated and a professionally trained teaching force in our secondary schools.

V

CHARLES DE GARMO, PROFESSOR OF THE SCIENCE AND ART OF EDUCATION, CORNELL UNIVERSITY

1. Practically all institutions for the training of teachers, to be found in the United States, are adjusted to elementary standards. Even in college and university professional courses the ideals of the earlier stages of education have heretofore predominated. We are just beginning to realize that the professional training of secondary teachers differs from that of primary teachers, not only in degree but often also in kind.

In the first place, so far as subject-matter is concerned, training for elementary teaching circles about the common branches, which everybody is supposed to know, which all teachers must teach, and all learners learn. But the case is different with preparation for secondary teaching. Here the subject-matter is so extensive that no teacher can teach and no learner learn it all. It follows therefore that the student must choose (or have prescribed) what he shall study, and the teacher must select a department of knowledge in which he may become a special, or departmental teacher.

Out of these relations there arises the need for a kind of professional study that is but slightly felt in elementary circles—that namely, of relative practical and educational values. For, how, except by pure tradition or by mere personal preference, can a course of study be wisely advised for any given student unless the adviser is fairly clear as to the educational and practical significance, both immediate and remote, of each distinctive department of knowledge? And how, moreover, can one be expected to make his students realize these benefits if he himself knows not what they are?

It is perhaps natural that those who believe in the sacredness of a certain course of study as universally valid condemn the study of educational values, because they condemn the introduction of branches that would in some degree displace those they have. Thus I read in report of a recent Berlin speech in favor of classical training that "the brazen lords of nature are not the elected teachers of the immature." Some there may be who prefer the "brazenness" of nature to that of such advisers. At any rate, I submit that it is a proper thing for the secondary teacher to be properly instructed as to what significance for life and for individual development the study of the various natural sciences

has; in what these sciences differ in their effects upon the mind, both as contrasted with one another, and with literary or historical studies? Where there are world-wide differences in the content of the studies, there must be significant differences in the educational results which the various studies should bring about in mental training. To make the old assumption that training is training, that only difference in degree exists, that each subject is an equivalent for every other in the degree of its effect, is to adhere to a superstition as incredible as that which ascribes green cheese to lunar composition. It is to shut one's eyes to the teachings both of psychologic and common sense alike. There are sciences whose basis is mathematical law; there are others whose basis is the unfolding of life—one group is demonstrative, dealing with the exact and law-accordant, the other is inductive, dealing with uncertain, often bewildering data. Compare, for instance, the study of a bird with that of a pump. The latter is comprehended when its mechanical principle is once understood; but when is one done with the study of a bird? We may study its life history, or its anatomy. The latter is almost without limit in its possibilities. Again, the mathematical sciences require for their retention that form of memory which rests upon clear insight into fixed laws, whereas the biological sciences are retained in mind thru a mastery of classification and an understanding of function. Likewise, the form of imagination stimulated by the two groups differs as radically in kind. If the nature poets had only the mathematical quality of imagination, it were a sorry task to read them. On the other hand, had the engineer only the biological quality of imagination, we should hesitate to cross his bridges or trust ourselves on his ships.

If the sciences differ so radically among themselves in their effect upon the mind, what shall we say of the contrasts they afford when compared with linguistic, literary and artistic, and historical subjects? Literature and art deal with ethics and aesthetics; history deals with contingent causes—those that might have been otherwise, had the circumstances of race, situation, education, economic conditions, passion, ability, or what not, been different. What man, not mole blind, could confound with one another the distinct educational effects that these various groups may have upon mind, heart, and destiny of a student? And what secondary teacher is qualified for leadership in this field who has not turned his attention to the fundamental truths that must underlie every rational course of study, whether in a special or general high school?

2. Such a study of educational values must, moreover, precede and underlie all rational study of methodology. Having only vague ideas of the ends which a study should subserve, how can a teacher be adequately prepared in the best methods of teaching it? And here it must be clear that method means to the secondary teacher something different from what it means to the elementary teacher. It is perhaps more special than general; or, at any rate, it falls more naturally into groups in accordance with the characteristic quality of the departments of study. Thirty years ago, for example, scientific

method was quite undeveloped; now it has developed so far in the universities that it not only rivals but, in many respects, surpasses in completeness of instrumentalities that which obtains in the older subjects. It has, for instance its laboratories with a place and a distinct set of apparatus for every student and an elbow-to-elbow assistant for every ten students. It has its lecture system which is kept in touch with the laboratory work, and it has, finally, its group system of recitations upon the combined work of lectures and laboratory, and of textbook study. No such elaborate and far-reaching ways of imparting knowledge have ever been devised even in languages and mathematics, to say nothing of history, economics, and social sciences.

As in the university, so in the high school the question of method rests upon a more technical basis than in the case of the elementary school. The candidate for the high-school teachership should base his study of method upon the nature of the subject-matter, the effects it should have in mental training, and upon the methods that have been effective in its development. He should not, if he is to teach science, be unacquainted with such books as Bain's *Inductive Logic*, and Jevon's *Principles of Science*, for these give him an enduring insight into the nature of his subject and the best ways to make it effective in the schoolroom. After a general methodical study of this kind, the candidate should make a special study of the admirable books now issuing from the press, such as the series by Macmillan and that by Longmans which are devoted to particular study. What can not a teacher of English learn from such a compendium as that of Carpenter, Baker, and Scott, or the teacher of mathematics from that of David Eugene Smith, or of Professor Young?

3. For the secondary teacher the study of the history of education should be more thorogoing and more special than it is for elementary teachers. While he should, of course, follow the development of universal education as seen in the elementary schools, he should at the same time give much attention to Greek ideals of culture and instruction since these have been so important in determining the curriculum of modern high schools. Upon this study of the sources of educational ideas, the student is prepared to base his future study of the rise and development of language as an educational means. In a similar way he should follow the introduction and development of mathematics, natural science, and history in the curriculum. It is well within reasonable expectations that the university student should master the admirable text of Professor Monroe upon the *History of Education*, and do not a little collateral reading besides.

4. With respect to the psychological basis for the study of education, it must first of all be remarked that the secondary-departmental teacher will not be a psychologist, for it takes five years to make a psychologist. What we may fairly expect from him, as a minimum, is a half-year's study of general psychology, and an equal expenditure of time upon applied, or educational, psychology, the emphasis being laid upon the period of adolescence.

5. The most difficult and most debated part of professional training for

secondary teachers is that of practice. The persons now most active in this discussion are those engaged in elementary training, not the principals of high schools or university authorities. It seems natural to think that if the practice school is a good thing in preparing elementary teachers, it would be an equally good thing in fitting secondary teachers for their work. Yet the matter needs some consideration on its own merits, and may need much experimentation before it is satisfactorily settled.

So far we have had little successful demonstration that a secondary practice school in the university is either practicable or desirable. No one would assume for a moment that a subject of such importance can be disposed of by a mere appeal to experience, positive or negative. Because a thing has been so or so adjusted in experience, long or short, home or foreign, we have no warrant for closing the debate, for the essence of progress often consists in innovation. Yet an appeal to experience is the natural introduction to a discussion of principle. In Germany the most weight has been laid upon the development of productive departmental scholarship, as a preparation for teaching in secondary schools. Only the man who knows his subject well enough to continue its development is, in Germany, theoretically fit to teach it in a gymnasium. This condition being met, the German candidate may turn his mind to other things. In the first place, there are two state examinations to be taken subsequent to his university study in which the history and principles of education are included. The secondary schools, being state institutions, and their teachers being state officials, the next step is to assign the young candidate to some gymnasium or school of similar rank for a year of trial or cadet teaching without salary under the supervision of the director of the institution. When the authorities are satisfied that the candidate can teach well, and when there is a place to which he can be assigned, his permanent appointment as a teacher follows. There are but few practice schools connected with German universities, and what there are busy themselves entirely with practice in elementary grades. This practice is of use to the supervisor of elementary instruction, but the question is an open one as to how useful it is to the real secondary teacher.

In the United States the practice of Germany is followed to a limited extent, as at Harvard and Brown with graduate students, while some are cherishing the hope which, in some cases amounts to expectation, of establishing secondary practice schools modeled after those of the normal schools. It would be premature to declare that the inherent difficulties lying in the situation cannot be overcome in this manner. Of one thing, however, we may be assured, that the means provided for giving the candidate his first practice in teaching, will in the end be those that conform most closely to the public interests concerned. Preconceived ideas, analogy with other institutions, practices of other countries, will all have to be measured by this standard. While we await the solution of the problem, as it will ultimately be worked out, it is perhaps allowable to consider the subject as it presents itself from theoretical and practical standpoints.

What shall we say, first of all, to the assumption that one may learn to do one thing well by doing another? Or, perhaps, that teaching is teaching, the same thing in the high as in the primary school, and that if you get good practice in the grades it will serve you equally well in the high school? This assumption must be seen to have decided limitations, because of the great differences between the two stages of school life. Young children are most effectively managed by an affectionate exercise of authority; high-school students, on the other hand, are most tractable when managed in accordance with the usages of good society. Authority there may be, nay, must be in the high school, but it is veiled by the social covering of politeness. To treat students as children is to be weak where one should be strong, for however childish some of their actions may seem, we may be assured that the feelings of American youth are those natural to the adolescent. The younger and more numerous in the class the children are, the greater the need of pedagogical technique; the older they become, the less need there is for it. It easily happens that the teacher trained in the methods of the primary school, but transferred to a high school, fails to arouse the best efforts of the students because he fails to apprehend the maturity of their capacity and feelings. The contact of mind with subject-matter is much more intimate and immediate in the high school than it can be in the grades. The intermediation of elementary devices for stimulating and guiding thought are far less necessary and desirable. The method of thought inherent in the development of the subject-matter itself becomes increasingly important as the student grows older, until in the university we often find impatience in any mediation between a subject of study and the mind of the student. The school man is rather inclined to condemn all teaching as unpedagogical that does not use the means of mediation with which he is familiar and which may be highly successful where he is wont to try them. But such condemnation may be wholly unjustified, as in the case of many famous teachers of language, history, and science. He is the best teacher who best succeeds in arousing the minds and hearts of his students to genuine educative activity, and while there is a wholesome methodology for the high-school teacher, I seriously question whether it is closely related to the technique so commonly employed in training elementary teachers. For the foregoing reasons I do not think that in principle we should train secondary teachers in elementary practice schools.

By this I do not mean that an elementary experiment school may not be of great educational worth in a university; but the function of such a school is not the training of secondary teachers.

Are practice schools of true high-school rank desirable and obtainable in connection with colleges and universities? Their educational desirability is dependent upon their educational (and it may be financial) cost. Advantages there would doubtless be in such practice schools, but it may be easily conceived that we find the community would have to pay too high a price for them.

In all our older communities the high-school teacher is a specialist both

because he wants to be one and because the school authorities demand that he shall be. A successful practice school of secondary grade should therefore be a large one to afford the desirable practice in many branches of study and kinds of schools. A teacher of languages would not be greatly inspired or guided by the teaching of a science, nor would the future specialist in history be much helped by teaching a class in mathematics. When we remember that universities must graduate large numbers of prospective teachers each year, every one of whom has specialized in one or two departments, we can easily see that such a practice school as contemplated would cost a formidable sum of money. But in America we need not be deterred by cost, if what we want is what the people want, or the cause of education imperatively demands.

Under favorable circumstances the people will stand and even pay for a practice school of elementary grade, but experience makes it questionable whether the public is willing to furnish students and money for one of secondary grade. An indication of the public aversion to such an arrangement is the potent fact that a private high school, like the Horace Mann School of Teachers College, for instance, would soon lose a large share of its patronage were it to introduce practice teaching in any considerable quantity. What the private public will not listen to, the public as such will probably in the end reject as an unjustifiable burden upon a few. And what no public will submit to, university boards of education are not likely to be willing to pay for, since it must be evident that in public opinion the advantages of such training would be too dearly bought.

The outcome of the foregoing argument may be summed up in the following propositions:

1. It is not worth while to establish elementary practice schools for the training of secondary teachers.

2. Practice schools of secondary grade, tho having some advantages both for the individual and the community, would be but meagerly supported both as to quality and number of students and the money necessary to conduct them.

I conclude, therefore, that for the present we must be satisfied with good professional instruction in educational history and principles, supported by a fundamental study of the psychological and social sciences; and with such practical instruction as may be gleaned from high-school visitation or gained by occasional cadetship in public high schools. Tho this may not be all that is desirable in the professional preparation of teachers, it is a great deal more than we have ever had.

VI

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What ought a high-school teacher to be, and what training should he have? He[1] should be a man of good personal qualities; and he should possess sound

[1] For the sake of brevity the masculine pronoun only is used. The entire paper applies to women as well as men.

general scholarship, together with superior attainments in some one field of human learning including the useful arts or the fine arts; he should be an efficient class-room teacher and manager of pupils; he should have a professional outlook or horizon; he should ultimately become a leader in his profession, and a useful and helpful influence in the community where his lot is cast.

PERSONAL QUALITIES

1. Some persons ought never to be teachers. Hence, it is our duty as guardians of the teaching profession to keep such persons out of that profession if we can, whatever their training may be; as well as to encourage and even, on occasion, to persuade others to enter it.

To say nothing of such disqualifying and almost unmentionable characteristics as habitual untidiness in person and dress, and chronic bad taste, it is clear that one who has an inborn incapacity for good sense or fine feeling; persistent bad manners; an irritable or gloomy or despondent disposition; a stolid or sluggish mind, incapable of intellectual enthusiasms and a healthy, discriminating optimism; a narrow view of men and affairs—that one who is a mere bookworm or a pedant; or an intellectual or moral prig, incapable of winning or holding the respect or regard of his colleagues or his pupils, an egotist, or a self-seeker—it is clear, I say, that one who is unmistakably burdened with one or more of these disqualifying characteristics ought to be kept out of the teaching profession.

On the other hand, it would be absurd to set up requirements impossible of realization. What we want, first of all, in candidates for the teaching profession are the qualities that mark the gentleman and the lady; then we want physical vigor, moral health and strength, and intellectual attainments and power. In other words, we want good personal qualities, good health, and good general and technical education. If, in addition, we occasionally secure the "born teacher," we shall be as happy as members of other professions are when the occasional *rara avis* appears. In what follows, good personal qualities in the prospective secondary-school teacher are assumed. My task is to set forth in some detail what the preliminary training of such a person should be to insure a good degree of efficiency at the outset of his career as a teacher, progressive skill in teaching, and a broadening and deepening interest in and insight into his profession—such a training as we may reasonably expect will promote increasing professional usefulness, in the broadest sense of that term, as time goes on.

SCHOLARSHIP

2. The first element of the teacher's professional equipment is adequate scholarship—scholarship that is at once broad and deep. This general proposition is, of course, a commonplace. But the sort of scholarship here meant is of such fundamental and far-reaching importance and is so often wanting in high-school teachers, that one need not hesitate to discuss it in some detail. The secondary-school teacher's scholarship must be broad in order that his

intellectual sympathies may be broad; in order that he may have an appreciative insight into the resources that he *and his colleagues* have at their command for the appropriate education of every pupil committed to their charge; and his scholarship must be deep enough in some one field in order to enable him to reveal the sense of mastery, the intellectual enthusiasm and power to bring about results, that kindle the same intellectual emotion and the same consciousness of growing power over difficulties in his pupil. The secondary-school teacher, more than any other, must impart richness and breadth to his subject, no matter what it is. His pupil is old enough to appreciate the best he can give him; and unless checked or disappointed, he is usually keen enough to demand, or at least desire unceasingly an extension of the meaning, implication, and application of the results of his own study—of the significance of all he learns. And this demand or desire only the well-equipped teacher can meet.

Not all pupils, it is true, manifest this eagerness to learn, and some are easily satisfied when they do. But a goodly proportion of the pupils have it and in most of them it can be aroused. Once started, it tends to grow. Whether it does grow or not depends on the teacher. Beauties in literature or art not perceived by the pupil, or meanings unsuspected by him; the unsolved mysteries of science as well as its known wonders and established laws, and its far-reaching applications; the fascination of mathematical truth, reasoning, and investigation in elementary as well as in advanced mathematics, together with the never-ending practical applications of mathematics, in science and in the industrial and constructive arts; the constant bearing of history on the development of right conceptions of American public service; the processes and products of manual training, always interesting in themselves but capable of an interpretative significance that insures economic enlightenment and interest—to enable the pupil to realize these and other illuminating, steadying, and inspiring influences is the privilege and the duty of the high-school teacher. And this duty cannot be adequately discharged by one who does not himself possess in full measure the resources of the subject he teaches.

To make this discussion specific, let us inquire now what ought to be the essential minimum of academic training which a high-school teacher should possess.

That our future high-school teacher should secure a good high-school and college education goes without saying; he must secure an equipment in scholarship at least four years in advance of his most advanced pupils. To this general proposition, I take it, every one will agree. But it will be necessary to examine this proposition more in detail.

Every well-educated person should have, first of all, a good high-school education, such as is represented in substance by preparation for admission to a good American college (provided the college allows a considerable range of choice in the studies that may be offered for admission). If all the best American colleges were ready, as they should be, to accept for admission any

work well done, and covering at least a year of four periods of prepared exercises per week, we could say that each pupil's work should cover at least one year's work in each of the studies enumerated below as "prescribed studies," together with two or three additional years of work in those studies (or groups of studies) which he prefers, as will be pointed out farther on. Since we have not yet attained the educational millennium, we should approximate the general scheme proposed in the following paragraphs as closely as possible.

PRESCRIBED STUDIES

(The figures mean so many class exercises per week. Double periods are to be understood for the sciences, when laboratory work is required.)

PREPARED CLASS EXERCISES		
English	3	
Foreign language	4	
Mathematics:		
(Algebra *and* geometry)	4	
Physical geography	3	
Physics	3	
American history	3	
Economic history or economics	3	
Government (civics)	3	26
UNPREPARED CLASS EXERCISES		
Manual training and drawing	3	
Drawing and the history of art	2	
Music	2	
Physical training	8 (2 each year.)	
	15	41

From the offering of a good high school the pupil should be required to choose, in addition to his prescribed studies, thirty-four periods of prepared exercises, if he desires the diploma of the school. These thirty-four additional periods should be so chosen that they are devoted chiefly to deepening and extending his knowledge and power in a small number of studies or groups of related studies already undertaken. Such a scheme of work seems to me to guarantee both necessary breadth and thoroness, so far as these terms are applicable to high-school education. Now breadth and thoroness are the essential characteristics of a future teacher's scholarship. This program is accordingly well adapted to the needs of future teachers.

3. On this basis our future teacher begins his college work. When he goes to college, he will select his studies on the same general principles that determined his choice of work in the high school. If he has not had this satisfactory precollegiate education, if his precollegiate training has been too narrow, say, he will naturally have to sacrifice some of the time he would otherwise devote to his specialty to such studies as will give him sufficient breadth of training. If, on the other hand, his precollegiate training has been too widely dispersed, he will be unable to make such progress in his specialty in college as is here suggested. But neither of these things should

happen in good high schools. That they do happen is an evidence of lack of insight and aim on the part of the high-school teachers.

For illustration, I select three typical schedules of study from the number that might be given—one for a teacher of English, one for a teacher of classics, and one for a teacher of physics. Each schedule represents the essential minimum of academic training a high-school teacher of the subject named should possess. Each of these schedules fills the entire time of an undergraduate working at the rate of five full courses (i. e., five studies at a time) each year—and no real student ought to attempt more.

No provision is made in these schedules for the study by the prospective teacher of his profession. As this study is just as fundamental as the teacher's study of "academic" subjects, it is clear that, in my view, undergraduate study for the teacher is not enough. The essential minimum—about four full courses—of professional study, without which a young high-school teacher should never be recognized as such, is accordingly assigned to a year of graduate study. Since, however, it will be impossible, for some time to come, to insist on this graduate year in practice for all high-school teachers, those who find themselves obliged to restrict their training to their undergraduate careers, ought to be required to take this essential minimum of professional studies as undergraduates. What this essential minimum is, is given below. Such a compromise between what ought to be and what can be reasonably demanded should, however, be recognized as temporary, and to be outgrown at the earliest possible moment.

For a teacher of English.—The student enters college with three years of English, four of Latin, two of Greek, two of German, and one year of French. This is a good linguistic preparation for the prospective teacher of English. If he is less well equipped with Latin and Greek, but has had better training in German and French, he will naturally give more time to the classics and less time to modern languages, than is suggested below. But his training in classics (in the high school and college together) ought never to be less than four years of Latin and two years of Greek. It is, of course, possible to enjoy English literature without some knowledge of the classics. But if a would-be teacher of English has had no classics at all in his precollegiate training he must at least know Greek and Roman literature thoroly in translation. Even so, however, he will find himself handicapped at every turn because he lacks the elementary philological training, without which thoro understanding and appreciation of English are impossible. That a teacher of English ought to possess such understanding and appreciation goes without saying. Hence, the scheme recommended seems to me a safe basis for general guidance.

SCHEDULE OF COLLEGE STUDIES FOR A TEACHER OF ENGLISH

FIRST YEAR

English	Rhetoric and composition
English	History of English literature. Anglo-Saxon period to the present day

Latin	[1]Literature. Horace: Odes and epodes; Livy, Terence, Andria, and Phormio: or, Tacitus: (Annals I–VI); Catullus: Selections; and other poets; Horace: Satires and Epistles
Greek	[1]Literature. Homer: Odyssey, Phaeacian episode; Euripides and Aristophanes: scenes from selected plays. Or, Plato: Apology, Crito; Lysias: selected orations; Elegiac, Iambic and Lyric Poets: selections; Euripides: Iphegenia among the Taurians. Lectures on the history of Greek literature.
History	English.

SECOND YEAR

English	Advanced composition
English	Seventeenth-century literature
German	Literature and composition
French	Literature and composition
Science	Physical geography or geology; or a half year of botany and a half year of zoölogy

THIRD YEAR

English	Debating and public speaking
English	Chaucer
German or French	Literature and composition
History	Mediaeval
Sociology or Economics	General principles

FOURTH YEAR

English	Shakspere
English	Nineteenth Century
History	American
Philosophy or Psychology	History of modern philosophy or psychology
Fine arts	Mediaeval and Renaissance

For a teacher of classics—The student enters college with four years of English, four of Latin, three of Greek, and at least one year of German and one year of French. It is usually impossible to accomplish this desirable preparation, together with other work a high-school pupil ought to do, in four years, and it ought not to be attempted. It can be done in five years, however.

SCHEDULE OF COLLEGE STUDIES FOR A TEACHER OF CLASSICS

FIRST YEAR

English	Rhetoric and composition
Latin	Livy, Horace, Terence
Modern Language	Literature and composition
History	Ancient or mediaeval
Science	Physical geography, or geology; or botany and zoölogy

SECOND YEAR

English	History of English literature
Latin	Virgil, sources and literary influence

[1] The alternatives are to be chosen in accordance with the pupil's preparation.

Greek	Plato, Xenophon, Lysias, Euripides
Modern Language	Literature and composition
History	Modern European or English; or life of the ancient Romans

THIRD YEAR

English	Study of a period of English literature; or
English	Shakspere
Latin	Tacitus, Catullus, Horace
Greek	Demosthenes, Aeschines, Aeschylus, Sophocles, the life of the ancient Athenians
History or Government	American

FOURTH YEAR

English	Nineteenth-century literature
Latin	Composition, one-half year
Greek	Composition, one-half year
Greek	The life of the ancient Greeks
Fine Arts	Mediaeval and Renaissance
Philosophy or Psychology	History of modern philosophy, or elementary psychology

The emphasis on Latin in this course is slightly greater than on Greek, because relatively few teachers of classics in schools are called upon to know Greek as well as they know Latin. But the principle is recognized that a teacher of either of the ancient classics must have well studied the other.

For a teacher of physics—The student has offered among his admission subjects advanced algebra, solid geometry and trigonometry, elementary physics, and at least two years of one modern language, either German or French.

SCHEDULE OF COLLEGE STUDIES FOR A TEACHER OF PHYSICS

FIRST YEAR

English	Rhetoric and composition
German or French	Literature and composition
Mathematics	Plane and solid analytics
Physics	Experimental physics, or general descriptive physics
Chemistry	Physical chemistry

SECOND YEAR

English	History of English literature
French or German	Literature and composition
Mathematics	Calculus
Physics	Advanced course in experimental mechanics (one-half year)
Physics	Light: Laboratory course (one-half year)
Physical Geography or Geology	
Drawing	Projections and machine drawing

THIRD YEAR

History	Modern European, or English
Physics	Laboratory course in electricity and magnetism. Measurements
Physics	Heat (one-half year)

Shop Work	Construction and repair of physical apparatus (one-half year)
Astronomy	Descriptive and practical astronomy
Sociology or Economics	General principles
	FOURTH YEAR
History or Government	American
Physics	Generation, transmission, and utilization of electrical energy
Physics	Thesis on a special problem
Fine Arts	History of
Philosophy	History of modern philosophy or psychology

PROFESSIONAL STUDIES

4. So much for our student's general and special scholarship. The very fact that he is to be a teacher implies that he must be something more than a scholar, important as scholarship is. Scholarship is for him not only an end in itself, but a means to an end—that end being the use to be made of it in the interest of his pupil. This interest includes the exceedingly important discovery of the pupil's dominant tastes and capacities and the progressive shaping of his education in accordance with that discovery.

This conception of the teacher's scholarship as an instrument in his hands for the good of his pupil is the teacher's conception, not the scholar's To endeavor to attain it is the duty of every teacher. Ultimately it will determine his permanent attitude toward his work as a teacher—not merely to this or that part of it, but all of it.

Now this professional attitude is very rarely the outgrowth of scholarship alone; indeed, scholarship may even prevent its development. Very few young graduates have even an inkling of it; and most young doctors have been prevented from acquiring it by highly specialized "research" in the field of pure scholarship. While these men are studying for their degrees, scholarship is only an end in itself. Incidentally, if they are preparing to teach, they know, of course, that scholarship is an indispensable part of their professional equipment. But this knowledge alone is quite as apt to promote a wrong attitude toward their work as a right one. It often leads a young scholar to regard the work of teaching as a necessary evil, to be borne only because it may enable him to pursue further the research which he loves. When this does not happen, when he really applies himself with some zeal to his work as a teacher, it often leads to an exaggerated or at least disproportionate estimate of the educational value of his specialty, and to corresponding indifference to the educational value of other studies. And the greater the degree of specialization, the greater the danger is. This is one reason, I suppose, why the doctor of philosophy who wishes to teach in a high school is sometimes justly regarded with suspicion by principals and superintendents. And it is doubtless also one reason why the German states require would-be secondary-school teachers to pass examinations in three fields of study—one

"major" and two "minors;" and also why relatively few German secondary-school teachers have secured the doctor's degree.

a) My point is, once more, that the teacher is not merely a scholar, important as scholarship is. To be available for teaching purposes, scholarship must have been acquired or at least overhauled from the teacher's point of view. The scholar must possess his scholarship in a new way. He must examine it with a view to attaining a clear conception of the *educational resources* of his specialty and an equally clear recognition of its limitations. He must, for example, have a definite answer to these two questions: (1) what ought the pupil to get from this subject under my guidance; and also (2) what can he by no possibility derive from it? The teacher of history, for example, may expect his pupil to derive from history social insight and interest, and some political enlightenment. But it is clear that social insight and interest, and political enlightenment do not constitute more than one element of the complex whole we mean when we speak of a good citizen; to say nothing of the fact that, at a given time, even social insight and political enlightenment cannot be secured thru history at all, owing to the pupil's immaturity, or unawakened social and political comprehension. Hence, the teachers of mathematics, science, languages, the mechanic arts, and the rest, have important subjects to teach as well as the teacher of history; and at a given time any one or several of them may be able to secure for the pupil a more adequate revelation of the world and a clearer self-discovery of the pupil than the teacher of history can secure. That is to say, the history teacher's business is to see that the world is revealed to the pupil from the historical point of view, while recognizing the worth and efficiency of other studies to the final end at which all are aiming—the pupil's knowledge of the world and of himself, and a command over both appropriate to his age and opportunities. The history teacher will thus realize that this historical revelation of the world, important as it may be in itself, is not the whole revelation. Just what this historical revelation is in its breadth and depth, it is the history teacher's professional duty to know; for this knowledge will determine nothing more or less than his *conscious aims* as a teacher—will determine the richness or poverty of his teaching, and the significance or want of significance of the subject for his pupil.

It thus appears that conscious aims, clearly and discriminatingly defined, constitute an important part of the teacher's professional equipment, and that scholarship alone cannot be relied upon to supply them, although it is impossible to realize them without scholarship. How are they developed? This question will be answered presently. But first something more needs to be said about them.

By implication it is already clear, from what has gone before, that the teacher's aims are both general and special. Up to this point, however, the teacher's special aims—i. e., the results he hopes to attain through his specialty—have received most attention. But his responsibilities do not stop with a

clear conception of what the pupil should learn of a given subject under his guidance. He must know *how to teach his subject so as to realize his aims.* He must also understand his pupil as a child and youth and not merely as a pupil of history, or literature, or science, or manual training; he must be able to guard and promote the physical as well as the mental and moral welfare of his pupil; and he must be able to estimate the significance and value of the work of the school as a whole in providing for its pupils the most salutary physical environment, and appropriate participation in all the worthy interests of life, i. e., satisfactory preparation for the pupil's maturity, for his work and for his leisure.

The teacher must therefore know how to teach and manage children and youth, must know the nature of children and youth, and the conditions of their satisfactory development; he must know whether the school in which he works is adapted to the ends for which it exists—in a word, he must have professional insight, interest, and skill in his own work, and he must have a professional horizon wider than his classroom, or his school.

b) The teacher's special aims and his power to realize them—his technical skill and his general professional insight and interest, and his professional horizon, he can derive only from the study of his profession. The lawyer, engineer, or physician has professional insight, interest, and skill which everyone recognizes, appeals to in case of need, and respects as valid when obtained because each of them bases his professional career on a body of organized facts and principles pertaining to his profession and on an incipient command over them, and he perfects this knowledge and skill by practice. That is to say, each enters on his chosen calling with a developed professional attitude i. e., with a knowledge of his professional responsibilities, and developed confidence in his power to discharge them. Such an attitude must be based on a prolonged study of the resources and the problems of his profession, and as much practice as possible in formulating legal advice and pleading cases; in making plans for routes, structures, or machines, and in executing those plans; in diagnosing bodily conditions, and prescribing treatment.

Now the teacher's educational aims, insight, interest, and skill and his professional horizon—the range of his professional efficiency—determine his professional consciousness, just as the corresponding equipment of the workers in other professions determines theirs. Such a professional consciousness is the professional attitude. It is the outgrowth of consciously possessed and tried resources. It makes the worker painstaking; prompt without precipitation; aware of the difficulties that beset his path, but courageous in meeting them; willing to experiment but not without adequate cause; judiciously aggressive in proposing new policies, and able to defend them convincingly in the face of all kinds of opposition.

Such is the desirable attitude that we have a right to expect every teacher to attain. That too many teachers now in service have it not is due to the fact that they have not taken pains to acquire it, they have not seriously studied

their profession. Until they do, it is impossible to expect that their employers or the general public will acknowledge their superiority over the lay public in matters educational; for, in general, no such superiority will exist.

Of what, then, does the teacher's study of his profession consist? First of all, as has been said, the teacher must know how to teach—he must command the technique of his art; he must know how to teach his subject and manage his class. At this point I may be pardoned a brief digression.

c) It is still believed by otherwise well-informed persons that any scholar is *ipso facto* a teacher, or, at least, that he can easily become a teacher—a good one—by practice only. (It would be more correct to say by floundering!) This view is held, with a conspicuous disregard for the testimony of experience, by many college professors, who are often called upon to recommend young graduates as teachers, and not infrequently by the employers of teachers—particularly private-school or endowed-school principals and trustees. In this paper there is no need to combat this error; and I content myself with reminding you, once more, in passing, that in spite of recent progress, it still persists—it still interferes with the development of *training in teaching* in our colleges and universities. Inasmuch as colleges and universities are the source of supply of the great majority of our high-school and private-school teachers, the persistence of this error must be reckoned with when we seek to secure proper training for high-school teachers.

But to return. Everyone, whether superintendent, principal, teacher, or layman, knows that bad teaching defeats the very ends for which the schools exist and is the source of enormous waste of money, time, and strength. It makes the most attractive study dull; bewilders, misleads, and repels the most earnest and capable pupil, and so, as just intimated, perverts the educational opportunity willingly and generously provided by the public, or expensively maintained by private means.

These are obvious commonplaces. But it will be necessary to insist on them until our college-bred scholars and specialists, and many of those who employ them as teachers, as well as most of those who recommend them for employment, finally divest themselves of the traditional error already referred to that scholarship and particularly specialized scholarship, involves teaching power as a matter of course. As long as this traditional error persists in spite of the evidence of experience—for I venture to say that no single fact of the high-school teacher's equipment for his work has been so often established by experience as that scholarship and teaching power do not necessarily go together—it will be necessary to insist that teaching power, like scholarship, must be acquired with painstaking care. True there are "born teachers" whose native gifts enable them to teach well without instruction; but most teachers in the past have not been born teachers, and most of them never will be. In the teaching profession, as in other callings, the genius is found only occasionally; and even he gains enormously by the careful study of every detail of his art or his profession. It is plain that the world's teaching must be done in the future

as it has been in the past, not by geniuses chiefly, or even largely, but by persons of ordinary endowments; and experience has shown that all such persons need to make the most of their natural gifts, whatever they are, by careful training.

The young graduate without technical training will naturally follow the example of his college teachers, since their teaching is fresh in his memory. If those teachers happen to have been good models, the neophyte of good natural teaching power will, ere long, beat out a fairly successful routine, although at the expense of his pupils, and more or less damage to his subject. If a young language teacher's model, for example, has emphasized the philological aspect of his subject rather more than its literary content and form, his pupil—our young teacher—will be likely to overemphasize the same thing in his teaching, in spite of the well-known fact that literature and not the refinements of syntax and long excursions into comparative grammar attracts most high-school pupils; if his model has been an inspiring literary interpreter as well as a reasonable grammarian, our young teacher will similarly be likely to address himself by preference to literary interpretation. The fact is, however, that without specific instruction in the various educational resources of his subject, the educational possibilities of that subject are not consciously recognized; and, what is even more important, the varying educational values of those resources are not seen to differ from each other, and to have varying values for different pupils. For example, I once heard a secondary-school teacher spend nearly the whole of one class exercise on three illustrations of a very unusual use of the ablative case by Cicero—one of the three having occurred in the lesson of the day.

So the prospective teacher must be led to overhaul his scholarship from the teacher's point of view, in order to become aware of its educational possibilities and their relative importance; and then he must secure a training in theory and practice that will enable him to work systematically and progressively toward realizing these possibilities in his teaching. Such training, when successful, develops the first requisite of a professional attitude, an attitude which, as has been said, is dependent on the consciousness of power to teach and incidentally, to govern pupils and classes, an incipient command over the technique of the teacher's art. This training naturally consists of directed observation of good teachers, instruction in methods, and carefully supervised practice teaching in the classroom, under normal conditions.

5. But, as has been said, to teach and govern well the teacher must know his pupils as well as the art of teaching and governing. He must know the fundamental characteristics of children and young people, in order that he may more appropriately become their guide and interpreter, and not merely their judge and taskmaster. And, of course, he must acquire the habit of studying every pupil, for his interpretation and guidance are effective only when they meet the needs of each individual. The teacher must, therefore,

learn as much as possible about the nature of children and young people, and he must acquire the habit of studying each individual, and of shaping his instruction and management in real harmony with both the general nature of children and youth and the particular characteristics of each pupil. That is to say, he must acquire the attitude of the trained and sympathetic student of the minds and hearts of all his pupils, and their individual responses to his influence. Incidentally all his professional training promotes this end. But it is directly arrived at in courses on educational theory (general principles of education, school hygiene, and educational psychology, particularly the psychology of mental development in children and adolescents).

6. But the teacher must also have a professional horizon. He must know his school as well as his class. He must see his own work in relation to that of his fellow-teachers; he must be able to co-operate with them, for the pupil's sake, on the basis of a good mutual understanding of the total aim, atmosphere, classwork, and collateral activities of the entire institution as an educational force; and he and they must be able to work together for the progressive readjustment of the educational opportunities the school affords, and the results it achieves to the actual needs of the pupils and of the community, as they appear. That is to say, he must study the high school as a social (educational) institution. He must know its origin and its development. From its vicissitudes he will learn much that will enlarge his professional horizon, and make him a more intelligent and constructive critic of its present organization, its relation to the elementary schools and to the college, and its actual contemporary efficiency. Such training should be given in a course providing for a thoro study of the secondary school, particularly the public high school.

7. But the teacher's professional horizon is still too narrow if it is limited to the educational activities of his own school and his own time. His profession has a remarkable history, of great intrinsic interest and professional significance. The history of education is the history of culture. It covers the varying educational ideals of important periods in the history of progressive nations, the social (political, religious, economic) conditions which gave rise to these ideals, and the institutions devised to embody these ideals, up to the present day. These ideals are also embodied in educational writings, and these are accordingly sources of fruitful thinking on educational theory and practice. To study the history of education is, accordingly, to pass in review the world's thought and activity in the field of education, and to reflect critically on its adequacy as measured by the standards adhered to in any particular period. To do this is to acquire a professional horizon that extends far beyond the confines of a particular classroom or school, and inevitably promotes the habit of applying thoughtful consideration to all educational problems or activities—and this is, as we have seen, the professional attitude which we are seeking every proper means to secure for every teacher. A good course in the history of education is, accordingly, indispensable to the essential

minimum of professional studies every secondary-school teacher should pursue.

8. From the foregoing it is clear that this essential minimum should consist of the following four courses:

1. General Principles of Education, one-half year.
   School Hygiene, one-half year.
2. Educational Psychology, one-half year.
   Methods, and Practice Teaching, one-half year.
3. Secondary Education—Particularly the Public High School, its Origin and Development; Relation to the Elementary School and to the College; Present Aims, Organization, and Work. Foreign Secondary Schools.
4. History of Education from the Time of the Ancient Greeks to the Present Day.

It is clear that a teacher's training is only well begun by such a course of study as has been outlined in the preceding pages. His growth must continue with the practice of his profession if he would continue to be efficient as a teacher, and increasingly useful as a member of an important profession whose interests he ought to be able to promote by his example, his voice, and his pen; and if he would be counted among those who not only render efficient vocational service, but can be relied on to co-operate with others in at least one of the many community interests lying entirely outside his vocation.

Thru the teacher's ministration the pupil is to be led to understand and enjoy this wonderful world of ours—to possess some command over its resources, to find in it the particular thing of worth that he likes best, and to look forward to the kind of work that he can do best. The pupil is to acquire knowledge and the power to use it; his heart is to be touched and taught to respond habitually to noble emotions of "virtue, honor, love, courage, and magnanimity;" he is to see and love beauty as well as noble emotions and goodness; he is to be trained to act in harmony with his insight, his warm heart, and his cultivated taste; and so to be and do his best in everything he undertakes. This is the teacher's ideal. All would like to approximate its realization, and few indeed would not try to realize it as nearly as possible, once it is seen. There are many teachers fortunately who cherish such an ideal, consciously or unconsciously, and who adhere to it and maintain an attitude of discriminating optimism amid all the trials, misunderstandings, discouragements, and disappointments that fall to the lot of every worker. Such teachers rejoice in their partial successes and derive from them the courage and good will that make for ever increasing efficiency. These are the chosen few—chosen by nature and a fortunate combination of circumstances to do the teacher's work.

Unfortunately, however, the conditions under which too many teachers carry on their work are a constant menace to the maintenance of the teacher's ideal, and not a few who have it at the start harden under them. Under the stress and strain of a deadening routine for small pay, or an unappreciative public, or narrow or ill-bred official supervisors, or some or all these combined, such teachers are in danger of losing the inspiring influence of their ideal, and

of forgetting it entirely. In any case, every teacher's inspiration is derivable from two sources—his equipment of scholarship and his professional insight, interest, and skill; and we cannot urge too strongly or too persistently the appropriate recognition of the training on which this inspiration depends until it ultimately wins, wherever found, thoro appreciation and appropriate material rewards.

VII

E. O. HOLLAND, JUNIOR PROFESSOR OF EDUCATION AND HIGH-SCHOOL VISITOR, UNIVERSITY OF INDIANA

1. The last few years of the nineteenth century will be noted as the time for a new and widespread interest in secondary education. In the past, educators have given their attention to the problems of the common graded schools and the college and the university. As a consequence, the elementary and the collegiate work have been well developed and been placed in the hands of specialists. It was not until about fifteen years ago that the secondary-school problem was able to demand the serious thought of the educational leaders. In the year 1890 was held the December Conference at Berlin. Four years later the Committee of Ten made its extremely valuable report. Within another year, the English Parliamentary Commission on Secondary Education concluded its investigations. In 1899, the Committee on College Entrance Requirements gave the results of its work. During these years, every state teachers' association has found the secondary-school problem one worthy of its serious and persistent consideration. As the late President Harper well said, "Wedged in between the great common-school work and the higher work of colleges and universities, its prominence in the past has not been commensurate with its importance." But this condition has been modified, and as a result, of all the educational advances made during the early part of this century, none will surpass that in secondary education.

The growth of the high schools during the past fifteen years has been phenomenal, for the enrolment has been nearly trebled. In 1889–90 the secondary schools enrolled 297,894, and in 1903–04, 822,000. This increase has been most marked in the Middle West in connection with the public high schools, and least marked in the private eastern academies. Yet the increase has been so great thruout the entire country that it must be called a national movement. From President Eliot's report we find in 1891 that 128 public high-school students entered Harvard; in 1900 there were 212, showing an increase of more than 65 per cent. In 1891, 147 students entered Harvard College from private schools; in 1900, there were 105, showing a decrease of over 28 per cent. Many of the great western colleges and universities have been enrolling thousands of young men and women, practically all of whom have been prepared in the public high schools. The growth in the high schools has made possible the rapid growth in institutions of higher learning. Yet notwithstanding this vast army of young people that pass each year into

the doors of our colleges and universities, the great majority of secondary-school students never enter an institution of higher learning. Since this is true, it means that the secondary school has a peculiar function, and in the language of Dean Russell, that function "is the selection and training of leaders for intelligent service in academic, professional, and industrial life." The high school of the twentieth century is not to be considered a preparatory school; it has its own specific work to do. It should reinforce the true democratic spirit in our government; it should arouse in each pupil both an intellectual and an intelligent interest in life; it should develop him along the lines of strength so he can render to society the greatest possible service. Dr. Hanus has said,

> Most of our editors, politicians, skilled mechanics, and labor leaders, our leading business men, and even the great majority of our professional men and women, are not college bred; but they have usually had a secondary-school training. These people are commonly the leaders of the people.

Since, then, the American high schools have a distinct function, and since they have such an intimate connection with the social, intellectual, and industrial life of the whole people, we should assume that the question of professional training for secondary teachers should be one that has received the most careful consideration. It is true that in recent years our educational leaders have thought and written a great deal upon this subject, but today we find that the vast majority of school committees are indifferent to this important problem, and that the secondary-school field is very largely in the control of inexperienced, unskilled, and incompetent teachers. The facts collected a few years ago by Superintendent Crum, of Madison, Neb., throw light upon this assertion. Beginning with September, 1896, there were at work in the Nebraska high schools 454 teachers, in 1905 only 74 remained. Here are the statistics by years:

> September, 1897, 190 new teachers entered the work; 1905, 27 remained.
> September, 1898, 192 new teachers; 1905, 25 remained.
> September, 1899, 169 new teachers; 1905, 34 remained.
> September, 1900, 178 new teachers; 1905, 29 remained.
> September, 1901, 162 new teachers; 1905, 42 remained.
> September, 1902, 188 new teachers; 1905, 62 remained.
> September, 1903, 188 new teachers; 1905, 90 remained
> September, 1904, 198 new teachers, making 583 in those positions.

Superintendent Crum discovered that over 33 per cent. of the total enter these important positions every year, and that over 67 per cent. of these teachers have been at work for less than four years.

These statistics are indeed startling, but, in a large measure, they are no more so than those to be obtained from any other state in the Middle West. These facts would seem to prove my assertion that most of the secondary-school teachers are inexperienced, but is it true that they are, as I have charged, unskilled and incompetent? In 1901, Professor M. V. O'Shea received reports from one hundred high-school principals and school superintendents

concerning secondary-school teachers, and, to reinforce this evidence, he carefully examined the records of one thousand inspections of secondary-school teachers. Here is what he discovered:

1. The university graduate has no just conception of what a high school ought to accomplish.

2. He has little sympathy at the beginning with the kind of work the high school must do.

3. He has little appreciation of what should be the right relation of his department to the other departments in the high school. He tries to monopolize all the time, and to crowd out other subjects, for he has not given thought to the relative value of the high-school branches. His last two years at the university led him to think that his specialty is the only subject to be taught in the secondary schools and beyond.

4. He gives special and technical work before the pupils have any idea as to the scope of the subject.

5. His tendency is to talk too much, to lecture to the pupils, and lecture he does regardless of the impracticability of the plan.

Spiritless teaching is the greatest fault to be found in the majority of these cases. The second fundamental fault is the narrowness of view. Pupils cannot see the bearing of the questions. The teacher fails to arouse delight and enthusiasm. Of course that kind of teacher is certain to have difficulty in discipline. Because of his inefficiency many pupils fall behind in the work and quit school forever. Such instruction, of course, is a costly business for the people. It decreases the efficiency of every high-school student, and, in many instances, it perceptibly lowers the moral and intellectual life of a community.

I think I have not made the case worse than it is. How are we to improve this condition? How are we to make the secondary schools equal to the important task they have to do? Of course the answer is that we must get the people to demand that the secondary-school teacher make a preparation that will equip him to meet the needs of the school. And we must get the people to be willing to pay for such service; for the high-school teacher should have the opportunity to do good work, to receive a reasonable salary, obtain advancement as a reward for excellent service, to be given social recognition, and to be secure from unfair attacks from the public. In a large measure the possibilities in the secondary-school field should be comparable with those to be found in the other professions. When this condition obtains, the best high-school teachers will remain in the profession and the poor ones will drop out because of the stronger competition. Then the high schools of the country will be able to wield a powerful influence on the life of the people. Improvement in the secondary-school work will come first of all from the efforts of the colleges and universities, and from the public-school leaders of the country.

During the fall of 1906, I sent out a questionnaire upon the general problem of professional training of secondary-school teachers, and with a query concerning the local condition and how this condition could be improved. I compared the forty replies received from the leading college and university

educators with those statements made by the same number of the leading college and secondary-school men of Indiana. I was especially impressed with the fact that the needs seem to be the same thruout the whole country. From one point of view this is not a misfortune, for we can approach the general problem with the approval and support of all sections of the United States. Practically all of the educators insist that the secondary-school teacher should possess four qualities: (1) general knowledge; (2) professional knowledge; (3) special knowledge; and (4) real skill in teaching.

2. From the answers to my questionnaire, I infer much difficulty is found in attempting to solve the fourth need and requirement—the development of real skill in teaching. All of us agree that the preparation of the secondary-school teacher cannot be satisfactory or complete until, in a practical way and under normal conditions, it includes actual experience in teaching. Only a few of my replies favored the establishment of a training-school in connection with the college or university because of the great expense and the difficulty in making such a school practical and attractive to any large percentage of the college students. Most educators seem to favor an affiliation with a nearby high school, where opportunity can be given the students of the department of education to observe skilful teaching and to take charge of classes under the direction and supervision of efficient teachers. Another plan that has been favored widely is that of sending out seniors, during the college vacations, to do work in some of the best schools of the state. Such a plan would enable the regular teachers to observe work in their own and neighboring schools—an opportunity today they seldom have. Some such plan, I believe, will in the future be used widely by many of the best city superintendents, who can thereby fill vacancies with less trouble and risk; and the pupil-teachers, having such experience, will be able to teach much more satisfactorily when given a permanent place the following year.

3. Already the departments of education in most of the institutions in the Middle West require the completion of a prescribed course, which includes work in the history and the philosophy of education, in educational and genetic psychology, secondary-school management and teaching, and in observation and practice.

As Dean Russell has stated:

> The lowest requirements which can consistently make for such a diploma or certificate, are as follows:
>
> *a*) The candidate must be a college graduate, at least when he receives the diploma if not when entering upon the course, or have the equivalent of a college education.
>
> *b*) He must satisfactorily complete courses: (1) In the history of education; (2) in the philosophy of education; (3) In school economy, especially school hygiene—an allotment, say, of eight hours a week throughout one year.
>
> *c*) As evidence of special knowledge in each subject in which a diploma is sought, the candidate should be able to show the equivalent of at least three years' collegiate study of the subject. . . . Such a course may very properly be conducted wholly or in part by the university department, which is responsible for the academic training in subject matter.

d) The candidate must be given opportunity to observe good teaching, study its method under guidance, and finally give instruction under normal conditions long enough to demonstrate his ability to teach.

"The lesson from German experience is that to liberal culture you must add special scholarship, and to special scholarship, professional knowledge, and to professional knowledge, teaching skill."

Here is the ideal toward which we are striving, tho we understand that there are many steps to be taken before it can be realized. In the Middle West the leading city superintendents are urging their teachers to go back to the college or the university for a year and take courses in education. Where the best salaries are paid, the school authorities can demand and obtain well-trained teachers. Those school communities which pay low salaries generally get poorly prepared or inexperienced teachers; the teachers that become efficient are quickly transferred to some other place paying better and offering more opportunities, and so those communities are left with teachers that probably earn the pitiful salaries paid.

4. In the Middle West the accrediting system used by practically all the colleges and universities has been found to improve the conditions of the better and larger high schools. Most of the universities have high-school inspectors (in Indiana, the State Board of Education acts in this capacity), and they have set a certain standard to be met by the secondary school holding a commission. They require that the minimum scholastic attainment of all teachers in commissioned high schools shall be equivalent to graduation from a recognized college, and shall include special training in the subjects they teach; "the number of daily periods of classroom instruction should not exceed five, each to extend over at least forty minutes in the clear;" the laboratory and library facilities must be adequate to the needs of the instruction; "all schools whose records show an abnormal number of pupils per teacher, as based on the average number belonging, even tho they may technically meet all other requirements, are rejected." Thirty is considered the maximum.

Certainly, these are splendid rules, but this association of colleges and universities "has omitted for the present the consideration of all schools whose teaching force consists of fewer than five teachers exclusive of the superintendent." Tho this last may be a splendid rule to follow, it seems to me that the most important work to be done by inspectors is being neglected. In Indiana, the State Board of Education has commissioned 240 high schools, which leaves 527 non-commissioned high schools that are not inspected by the members of the State Board. This is the condition of practically every state in the Middle West, and it means that the schools that especially need direction and encouragement are ignored. If money is needed for inspection, it should be furnished, for we cannot expect to raise the standard of secondary education thruout the country unless we give practical aid and direction to more than one-third of the high schools.

VIII

C. H. JUDD, PROFESSOR OF PSYCHOLOGY, YALE UNIVERSITY

1. The preparation of a high-school teacher has never included as much attention to special methods as has the training of elementary-school teachers. Much greater emphasis has been laid in preparation for high-school work upon a broad general training and upon training in the special line in which the teacher is to give instruction. These practices of the past are being called in question at the present time by many who regard the work of the high school as inferior in method to the work in the elementary schools. Indeed, the criticism is very frequently made by superintendents and those who have charge of elementary work that the poorest teaching in the schools is to be found in the high schools. The criticism undoubtedly has some justification in actual experience, but in the opinion of the present writer the remedy is not to be found in the institution of normal schools for high-school teachers as has sometimes been suggested.

2. The fact is that the work of a high-school teacher is more general in character than the work of an elementary teacher, and, from the nature of the case, high-school instruction is less susceptible to general definition in point of its method. The high-school teacher is not called upon to drill in the fundamental forms of knowledge, his problem is rather to open up before the developing mind great bodies of information and new forms of thought. The individual with whom the high-school teacher has to deal is very much more of a distinct personality than is the child in the elementary school. Indeed, the characteristic fact about the high-school pupil is that he is reaching a stage in life in which he is differentiated by his development from those who are about him; he becomes clearly conscious for the first time of his own personal interests and his own personal place in the world. To deal with a class of high-school students in anything like an adequate way requires that the teacher shall have the keenest sense for the individual characteristics of the members of his class.

3. There is one statement from which there is not likely to be any dissent. A teacher in a high school should have a broad general education which carries him far beyond anything that he will be called upon to teach to his students. Put in the concrete this statement means that graduation from a college is the minimum requirement which can be tolerated in the case of a high-school teacher. If the candidate is not a graduate of a college he should be able to give evidence of at least the equivalent of a college course in independent study. It is not so much the formal compliance with the academical requirement as it is the study which is implied by an academical degree that should be considered. No young man or woman should present himself as a candidate for a position in high-school mathematics, for example, who has not mastered the higher branches of this subject. Nor should he present himself in science unless he has taken more than a freshman or sophomore course in physics

and chemistry. The high-school teacher must be qualified in the subject which he is to teach by a specialized study of this subject far enough to become acquainted not only with its elements, but also with some of its more advanced phases. If there is to be any limitation of training in preparation for high-school positions it should not be along these lines.

4. Not only should the high-school teacher be acquainted with the subject that he is to teach but he should also be acquainted with the institution in which he is to teach. More than for any other teacher is it essential for the teacher in the high school that he should understand the history and present position of the high school. This institution stands in the midst of our educational system; its influence upon the lower schools and upon the schools which are above it give it a central character and importance which has been felt very powerfully in the historical development of American education. One needs only to turn to the history of our middle schools by Professor Brown to recognize that the influence of these schools has been very large in determining the revision of the course of study in American colleges, and at the same time this influence has been very marked upon the development of the public schools, especially thru the preparation which the high school has given to many of the teachers in the elementary schools. To be sure it is very desirable that all teachers have some knowledge of the historical development and present condition of the schools, but the elementary teacher is more likely to be called upon to follow a line of teaching which has been marked out by the superintendent, and the college teacher may devote himself to his specialty and leave the problems of reorganizing the college curriculum to the forces which are operating thru the elective system and thru other general movements to determine the character and scope of college courses. No high-school teacher, on the other hand, can neglect, as he prepares his courses, the intimate problems of organization which come up in connection with his work. Our high schools would not be bound to traditions if there existed among high-school teachers a clear historical insight of the origin and character of the traditions which have, in a very large measure, determined the development of high-school courses.

We may assert, therefore, that a study of the history of education is essential to preparation for high-school teaching. There should be some instruction offered in our American colleges on the historical and institutional relations of the high school if colleges are to meet this second obvious requirement as fully as they meet the requirement which has been described above in discussing general training in the teacher's specialty.

There is a very general movement in American colleges looking toward the satisfaction of the demand here expressed for a historical course. Almost every institution is introducing a course in the history of education as an essential part of the curriculum for those who are to teach. It is highly desirable that his work be placed upon the same academical footing as the well-established courses in history in our colleges. The history of education has long

been required of German and French teachers in the higher institutions in those countries. It would be quite impossible to find among the teachers in the German *Gymnasium* or the French *lycée* anyone as ignorant of the movements in the history of education as can be found in every high-school faculty in this country. The course of history of education should not be a formal course such as is offered in many institutions. It should not be merely a course dealing with the educational reformers who have co-operated primarily in the development of elementary schools. It should be rather a discussion of the whole development of educational institutions, including especially the higher schools. Such a work as Paulsen's on the higher schools in Germany should be prepared for the special use of colleges.

5. A third requirement which should be made upon the student who is preparing to teach in the high school is that he prepare himself to treat in a thoroly scientific way the individual problems which confront him in the person of each pupil and in each new phase of the presentation of his subject. Much could be said in favor of a modification of the requirements imposed upon teachers in the elementary schools, so that they also shall be trained, not in special methods, but in the general scientific method of treating all educational problems. Yet if the elementary teacher adheres strictly to the same elementary method of procedure, he will not go so far astray as will the high-school teacher who attempts to deal in a stereotyped way with the highly individualized pupil of the high school. Too great emphasis cannot be laid upon the fact that every high-school problem is a distinct problem requiring a distinct and intelligent mode of treatment. The teacher who has not cultivated flexibility of sympathy and procedure should have no place in a high-school faculty. When a boy or girl shows inability to grasp a problem from one point of view, there is certainly no justification for a reiteration of the method which has failed and an effort to make the individual child conform himself to this ordinary method. The teacher should be prepared to meet the intellectual difficulties of a high-school student with a flexible method. His problem is therefore essentially a scientific problem. It consists in investigating the case in hand and meeting it exactly as a trained scientific engineer would meet his problem. No general rule can be laid down for the building of bridges. The suggestion which has been made above, that the high-school teacher become acquainted with the historical problems and historical development of his institution, will furnish much of the material in method that may be helpful to the individual teacher, but beyond these suggestions which can be derived from a careful study of institutions and their growth, there is relatively little to be derived from any mere restatement of high-school methods. What the high-school teacher ought to have is that intangible something which we call the scientific spirit. He can secure that only from the thoro mastery of some experimental science. If, for example, by a course in chemistry the student has been trained to take any substance which comes into his hands and work out a careful analysis of its constituents and the mode of their combi-

nation, he has certainly acquired something which is more significant than the facts of chemical composition; he has acquired a method of attacking the problem which comes before him. In the same way, if his studies have been along biological rather than the chemical lines, if he has learned how to observe the characteristics of certain living forms and how to relate these characteristics to the environment in which the organisms have grown up and in which they live, he has acquired again a method and spirit of observation and study which will be of great assistance to him in his contact with pupils.

The demand which is expressed in this discussion of the scientific spirit is so broad and general in its scope that the single illustrations should not be taken to cover the whole demand which is being expressed. No student who pursues a course in chemistry or a course in biology or a course in any branch of science merely for the sake of the facts which we will derive from these courses has acquired the scientific attitude which will lead him to take up every problem which he confronts in a scientific way. The best kind of training for the scientific spirit which is being demanded in these statements is the kind of training which is required in most institutions for the advanced degree of doctor of philosophy. The essential requirement for this degree is that the candidate shall exhibit ability to carry on independent research. Our American institutions suffer in comparison with the German and French institutions below the university in the fact that the German and French institutions are manned by those who have shown themselves able to do scientific work of an independent sort sufficient to give them the doctor's degree. It is perhaps too early in our American educational development to demand that the teachers in our high schools be doctors of philosophy in every case, but every institution which is preparing teachers of high schools should make a special effort to introduce into the course of study some training of the sort which shall make its graduates independent in dealing with educational difficulties. Even if a man is going to teach Latin or literature or history, one phase of his problem in the high school will be to deal with individual minds. These he must diagnose on the spot; no set formal method can be given to him. He must be able to cope with new situations that arise in a period in the student's life when there is the largest degree of variation and the most capricious type of development. The training which a high-school teacher needs is closely comparable to that needed by a physician. No student of medicine is allowed to feel that he can learn formal methods of treating cases. He may become acquainted with the general forms of treatment that are utilized by those who are older in experience than himself (this would be comparable to the historical and institutional training which was advocated above), and then the main emphasis in the physician's education is laid upon the scientific studies which will render him independent as far as possible of any formal precepts and make him a student of every case with which he has to deal.

The fulfilment of this particular requirement does not call for any modification in the present course of study provided in American colleges, but it does

call for a very radical modification in the types of training that have been looked for in candidates for high-school positions. One very seldom hears any inquiry made of a teacher who is to give high-school courses in history other than those which relate to his preparation in history. The same is true of literature, of modern languages, and even of mathematics. There has been very little recognition of any special preparation for educational study of the children.

a) The demand which is here expressed has often been recognized in a somewhat narrower form. Teachers have been urged to study some scientific subject closely related to education, such as the theory of education or psychology. The unfortunate effect of short courses in these subjects has often been that teachers have required the false notion that they are supplied thru these courses with a scientific attitude toward education. Psychology and theory of education may be, and often are, quite as formal as other disciplines. It is only when these lines of study prepare the teacher for independent grasp of educational problems that they serve the end for which they are here advocated. It would be very much better for the prospective teacher to get a broad general scientific training by taking courses in biology or physics and then learn to apply his scientific habits to education thru psychology or the theory of education, than that he should get a vague body of psychological information and little of its scientific spirit.

The fact that high-school teachers are not generally trained in the methods of independent attack upon problems comes out very clearly when one contrasts American high-school teachers with teachers in the German *Gymnasium* or the French *lycée*. To be sure the ordinary high-school teacher is overloaded with hours and is distracted from original investigation by temptations to enter administrative positions, such as the principalship of a high school or the superintendency of some neighboring school system, and for these external reasons scholarly research in American high schools is relatively rare as compared with German and French schools. But when all of these external conditions have been taken into account, the fundamental difficulty lies in the fact that high-school teachers are not trained in the methods of investigating even problems that fall within their special lines of investigation. It is a little wonder in view of these facts that there should be so much formalism and lack of scientific investigation in their treatment of the practical school problems which can come to them.

b) It seems very doubtful whether this special form of training can be adequately provided by departments of education in colleges. It certainly could not be provided by any special institutions for the preparation of high-school teachers analogous to the normal schools of the training of elementary teachers. The best work of a department of education in this respect is probably to interest students in broad scientific study and to interest the scientific departments in the college in giving the right sort of scientific attitude to those who are preparing to teach in the high schools. Some special

discussions from a scientific point of view of the problems of the high school might very properly be the work of a department of education, but the candidate for a position in the high school should never be allowed to present, in full satisfaction of his science requirements, courses in the theory of education. Such theory of education is at the present time in too formative a condition to be a suitable basis for scientific training.

6. A brief summary of the foregoing argument, then, is as follows: First, the most essential requirement for the preparation of a high-school teacher is elaborate training in the subject to be taught. This should extend into the higher branches of the subject to be taught to a sufficient extent to make the student reasonably independent in his judgment of authorities upon that subject. Second, the teacher should be acquainted with the institutions of education in the midst of which the high school stands. He should have some knowledge of the development of secondary schools in other countries and in America. Third, he should have, whatever his specialty may be, a training in science for the purpose of preparing him to deal with the problems that arise in his contact with students. The source of this training should not be sought in those disciplines which deal most intimately with the facts of education, but in whatever scientific subjects are available as giving the most complete training in scientific method.

IX

GEORGE W. A. LUCKEY, PROFESSOR OF EDUCATION, UNIVERSITY OF NEBRASKA

1. We are in the midst of a most fruitful period in educational history. Within the past thirty or thirty-five years the population of the United States has doubled, the school attendance trebled, the average length of the school term has increased from one of six to one of seven months, and the attendance in public high schools risen from thirty thousand in 1878 to over six hundred thousand in 1903. Taking the last ten years for which I have been able to obtain data—1893–4 to 1903–4—the enrolment in secondary education increased from four hundred eighty thousand to eight hundred twenty-two thousand, or an average increase of more than thirty-four thousand per year. During the same period the enrolment of students in colleges and universities in the United States changed from seventy-eight thousand to one hundred eighteen thousand. I have reason to believe that this great increase in higher education has been no less rapid during the past few years. In many schools the attendance has doubled and even trebled within the last ten years.

This evolution in education is shown not alone by the increase in attendance. Our conceptions of education are undergoing a remarkable change. The people are beginning to realize that secondary education is an essential part of the common-school system, the years of which increase in importance as you ascend the scale. Human life is larger than it used to be and vastly more important. As civilization grows in complexity, education must grow in

efficiency. Owing to the increase in education and the complexity of present-day problems, greater responsibility is being placed on the young. In the high schools of the future are to be planned and executed some of the most important battles of civilization. These schools must be kept in close touch with the life of the community. All problems that vitally affect society should find consideration here. To teach in such an institution one must know and appreciate life. His education must be dynamic, not static. He must have keen insight and be able to adjust himself to new conditions with the least possible friction. He must not only be thoroly alive to the needs of humanity, but he must know how to inspire others with its problems.

Not many years ago the chief purpose of higher education was to prepare for professional life. Only those who desired to enter the learned professions had need of such education. Today the problem has greatly changed and the multiplied industries as well as the learned professions are in need of men of brain and brawn. To meet these changed conditions of society the high-school curricula must be modified, the attendance increased, sex and class distinctions and advantages eliminated, and the teaching force vitalized. To do this the problems of education must become a part of every teacher's stock in trade.

Large sums of money are needed to carry forward the work of education and more will be needed in the future. But the people recognize the importance of giving and can be relied upon so long as they have faith in their schools. If the teacher is properly prepared for his work and equal to the emergency, he will give sufficient proof for the faith reposed in him. He will organize and give purpose to the thought, shape the ideals, and better the life of every boy and girl placed under his instruction. No one can succeed without an ideal or well-conceived aim, and it is the purpose of good teaching to create within the students ideals of life equal to their strength and worthy of their best endeavor. The aimless teacher can be of no service in inspiring others—precept is nothing, example is everything. He must have a high moral purpose, be thoroly alive, progressive, observant,and in sympathetic touch with the life of the community. It is no easy matter to prepare such a teacher, for more depends upon the how than the what.

The importance of this question can be seen in another way. In 1896 the University of Nebraska established what is known as the University teachers' certificate granted only to graduates who have met certain academic and professional requirements preparatory to teaching.[1] Since that time the certificate has been granted to four hundred fifty-one graduates. One year ago, one hundred fourteen students received the degree of Bachelor of Arts, sixty-seven of that number received the university teachers' certificate, and eighty-two of the number are now teaching. This year (1905–6) there were one hundred thirty-eight students who received the Bachelor of Arts' degree,

[1] These requirements are explained somewhat in detail in my work on *The Professional Training of Secondary Teachers in the United States*, The Macmillan Company, New York, pp. 186 ff.

sixty-eight of whom received the university teachers' certificate, and eighty-eight of the graduates have indicated their intention of entering the profession of teaching. For a number of years a majority of the graduates of the university have engaged in teaching and what is true of the University of Nebraska is no doubt equally true of other state universities if not of all higher institutions. It is especially important that the education of these students who are to exert such a telling influence on humanity should be planned with care. And since, in many instances at least, they represent the majority of the student body there should be established in every such institution ample provision for their training.

2. When we come to determine the particular training of the high-school teacher there is still some divergence of opinion, tho there is quite general agreement that the high-school teacher should have at least a college education. By this is meant that he should have completed at least the first sixteen years of public education, as usually outlined, four years of elementary, four years of high school, and four years of college. The Committee of Fifteen appointed by the National Educational Association to consider among other things "The training of teachers" said, in its report of 1895, that,

> The degree of scholarship required for secondary teachers is by common consent fixed at a collegiate education. That no one—with rare exceptions—should be employed to teach in a high school who has not this fundamental preparation.

This seems to have been the prevailing view of the National Educational Association ever since, and it has come to represent the more often-expressed view of the different state associations. Quoting from my work on *The Professional Training of Secondary Teachers in the United States*, published by the Macmillan Company in 1902:

> We have reached a point in our educational progress—at least in many states—wherein the minimum standard for the preparation of elementary teachers can be, and ought to be, the equivalent of a four-years' high-school course, and at least two years of additional training at some good state normal school. The minimum requirement for secondary teachers should be, in addition to the above high-school course, a four-years' college course, supplemented by the professional requirements as outlined in the preceding chapter; the latter to be insisted upon as earnestly as the normal-school training is in the former case.

Since writing the above I am even more convinced that these standards are attainable, practical, and desirable.

3. Scholarship alone is not sufficient no matter how thoro and extended it may have been. There must be in addition the teaching instinct, and a knowledge and appreciation of the educational processes and the laws of mental growth. Teaching and learning are disparate processess and are not acquired in the same way. The process of learning is one of acquisition and mental adjustment, while the process of teaching is one of guidance and the imparting of knowledge. The prevailing motive in the one case must be the desire to know or to understand, while in the other it must be how to impart, to assist others, to know what is already known. In the one case the

end in view is the object or the subject-matter, in the other the growing mind of the child. Hence to know education from the learner's standpoint is not to know it from the teacher's standpoint.

4. When we come to determine the nature and amount of professional training for the high-school teacher there is less unanimity of thought. There is quite general agreement that there should be at least twelve hours in the department of education, and I am but voicing the prevailing practice when I quote again from my work on the professional training of secondary teachers as follows:

> The average amount of purely professional study required of the student for the university-teachers' certificates is usually from fifteen to eighteen hours—more often the latter. This may or may not include a course in psychology offered in the department of philosophy and a special-methods course offered by the department in which the student has his major (academic) subject. The professional work is more often spread over the last two years of the college course. By some it is thought preferable to have it deferred until the last year in college or taken as graduate work and made a matter of concentration and intensive study.

The time will come when this professional study will be required in addition to the Bachelor's degree, but I do not believe we are ready for that now. I think it is better to have the professional training spread over the last two years of the college course. Naturally the professional study of the teacher should follow rather than precede or be taken with his academic training. The reasons for this have been given elsewhere.[1] It is difficult for the student to approach a subject both in the attitude of the learner and the attitude of the teacher at one and the same time.

5. The various courses offered in departments of education which come under the category of professional knowledge may be grouped under the following heads: historical, theoretical, psychological, practical. Under historical may be included the history of education, school systems, educational classics, educational reformers; under theoretical may be included the theory, science, and philosophy of education; under psychological, genetic, and applied psychology, child-study, and adolescence; under practical, school organization, management and supervision, observation and practice teaching, methods of instruction, and the art of teaching. There is, of course, in this grouping considerable overlapping depending on the teacher and the nature of the instruction. The work of the student should be distributed over these four groups in order that the profession of teaching may appeal to him in its true significance.

6. From a study of the problem it is evident that the subjects which are thought to be of the most importance in the professional training of secondary teachers are as follows: history of education, with a probable course in educational systems—foreign and domestic; educational psychology, including child-study and adolescence; theory of education, including the science and

[1] See *The Professional Training of Secondary Teachers in the United States*, published by the Macmillan Company, New York, pp. 189 ff.

philosophy of education; school administration, including organization, supervision, and management, observation of actual schoolwork under direction and criticism, and practice teaching. The latter should be obtained when possible under conditions similar to those of actual practice and is essential in the training of a teacher, tho less vital in the training of a secondary than in the training of an elementary teacher. I desire to call attention to Part I of the *Fourth Yearbook* of the National Society for the Scientific Study of Education which is devoted to "the education and training of secondary teachers," edited by Professor Manfred J. Holmes, secretary of the National Society, Normal, Illinois. This is a valuable monograph and should be in the hands of everyone interested in the training of high-school teachers. It treats the more important topics concerned in the education of secondary teachers in an able and interesting manner.

7. It seems to me that the time has come when we should demand of the new high-school teacher not only a college degree but also a professional diploma which will indicate that he has made a serious study of the important problems upon which he is about to enter. This would in time prevent two-thirds of the present failures in high-school teaching and bar from high-school instructors much of the "cultured aimlessness" that is now in the shape of individuals drifting thru our colleges without a purpose or a thought of the meaning and seriousness of life. When fewer teachers enter the schoolroom without professional training the normal schools and college departments of education will receive less criticism for the failures they do not cause and have had no opportunity to prevent.

8. Two thoughts should be made specially prominent in the academic requirements of the high-school teacher. First, he should have a broad general education, hence a Bachelor of Arts' rather than a Bachelor of Science' degree, unless the latter is made to cover an equally broad culture foundation. Second, he should be a specialist in the subjects he expects to teach, not a specialist in the narrow sense of having his knowledge confined to a single subject, but a specialist in the broader sense of being strong in one line while familiar with and keenly appreciative of many others. In this academic training the University of Nebraska has long held that the student who is to receive the university teachers' certificate must show a much higher grade of scholarship (averaging above 80 per cent. on a scale of 100) and keener appreciation than he who is simply permitted to pass for a degree. On these points Dr. A. F. Nightingale, in the monograph above referred to, says:

> I would make language, then, ancient, modern, foreign, native, the basic study for all who would become successful teachers. Upon these foundations laid deep and strong, I would build a superstructure, scientific in character, mathematical in correctness, historical in breadth; and upon this building poetical in its symmetry, beautiful in its proportions, richly plain and plainly perfect in all its inner furnishings, there should rise some magnificent turret, original in design and typical of a special genius, which should tell to all around its exact location and for what it is specifically adapted.

Given the above training in a suitable environment the student with apti-

tude for teaching will make an excellent teacher and all others should be directed into other channels where they are more likely to succeed or to do less harm in misdirecting others.

X

GEORGE H. MARTIN, SECRETARY OF MASSACHUSETTS STATE BOARD OF EDUCATION

1. The absence of means for training teachers for public high schools is the most glaring anomaly in the American system of education. The reason for it is easier to find than the remedy. When the movement to provide for the training of teachers began in the first half of the last century there were but one or two public high schools. Boys learned their Latin and Greek and mathematics preparatory to college in endowed academies.

The reformers of the time had only the common or district schools in mind when they established normal schools. The objective point in all their arguments was the improvement of the "common" or "free" or "district" schools. The dedicatory addresses at the opening of the early normal schools were alike in declaring that an auspicious day had dawned for the common schools. Thus they became associated in the public mind with elementary education alone. There was a tacit assumption that special training was needed only for the comparatively illiterate young persons who aspired no higher than to be teachers in the common schools. Thus a stigma of educational plebeianism attached to the normal schools from the start, and professional training itself came to be regarded as a means of making up natural deficiencies or as a short cut to a low-grade career. To be sure, all the arguments used by the advocates of normal schools and all the analogies from the other professions which they presented applied as well to the teaching in academies and colleges; but this seems to have been wholly overlooked so intent was everyone upon reforming the common schools.

While the normal schools were developing their work, the public high schools were taking the place of the academies and drawing their teachers from the same sources, that is, from the colleges. The teachers in these schools shared with their college instructors their contempt for normal schools and, what was far more serious, contempt for professional training. Not many years ago a professor in Yale College was asked, "What importance do the members of the Yale faculty attach to the science of education?" "None, whatever!" was his prompt reply. And at about the same time the foremost college president asserted publicly that all the principles of education worth knowing could be learned by any intelligent man in twenty-four hours.

It is not surprising, therefore, to find teaching in the secondary schools which violates every axiom of sound pedagogy. Some twenty years ago in a report on the high schools of Massachusetts made to the board of education by one of its agents, the writer after giving some amusing specimens of class

teaching said, "My observation leads me to conclude that untrained teachers are much alike whether they have been graduated from a college or only from a district school."

I think no unprejudiced observer can escape the conclusion that the falling out from the high schools during the first two years is due more largely to the preponderance of these young college women than to any other single cause. In the higher grades of the grammar schools from which these students have come to the high schools, they have been under the influence of strong men and women most of whom have learned the science of teaching either in normal schools or in the school of experience or more often in both. Going from skilled to unskilled teachers, the students fail to adjust themselves to the new environment and then comes mutual misunderstanding. The friction is attributed to every cause but the right one—to weak and coddling methods in the grammar schools, to superficial teaching, to defects in the high-school course of study, to social interests, to the craving to be out in the world. Were these causes real, their existence would only emphasize the need of better teaching in the early high-school years.

2. Turning to inquire what these young collegians need to fit them to teach, no one who has seen any considerable number of them at work but knows that what they need most and right away is knowledge of elementary psychology and of the simplest principles of pedagogy. This is what all persons need who are preparing to teach, and in this respect there is no difference between teachers in elementary schools and teachers in high schools.

To acquire in the most simple and direct way knowledge of the mutual actions and reactions of the mind—any mind—and its environment, knowledge of the relations of the mind and body, knowledge of the way the mind acts in acquiring knowledge and shaping conduct under its own impulses and under natural conditions, and how its actions may be modified under the impulses of a teacher and under the artificial conditions of a school—to acquire this knowledge is the beginning of the special education of all teachers. College graduates, because of their longer training, should have greater power of concentrated and sustained thought and should be able to acquire this knowledge quicker than persons in the ordinary normal schools, but the essential thing is that it should not be clouded by metaphysics nor obscured by the complexities of scientific method.

With only so much knowledge as this, the young teacher beginning in a secondary school would be saved from many mistakes. What is more important for him he would know that to be a good scholar is not all that is required to become a good teacher—a bit of knowledge that not one secondary school-teacher in a hundred had ever heard of, or read of, or dreamed of when he began to teach.

3. Because the process of development becomes more complex with increasing years, because multiplied and varied experiences, subjective and objective, need to be organized and utilized, the secondary-school teacher

needs to have his attention concentrated for a time upon the especial psychology of the high-school age. He needs to know how the function of the teacher changes with changes in the pupil, so that he may waste no time in false starts. On the school side there is needed some elementary knowledge of the principles of school organization and of school and class management.

On this common foundation for all teaching may be built a structure of professional training as broad and generous as circumstances make possible—a structure to which all previous college work may be made to contribute.

4. While the elementary knowledge thus briefly outlined is essential to the teacher's success, to stop with it would be disastrous. Unless a teacher in any department gets a broader view of the scope of his work than can be obtained by looking at his pupils simply as pupils and studying them with relation to their place and work in his classroom, he has no element of the master-workman.

The most important lesson which his training can afford him is the distinction between education and schooling, between a man or a woman and a scholar. To come to discern the higher functions of the teacher and the course of study and the school in view of the larger life, is to reach a view-point necessary to the teacher equally for his own dignity and for his power to inspire his pupils. It is at this point that the secondary school should make its most distinct contribution to the public. Because the high-school age is peculiarly the age of ideals and of enthusiasms, peculiarly susceptible both to worldly and unworldly impressions, the views of life held by the teacher are of supreme importance, and the teacher's powers of insight and of influence need to reach the highest standard both in quality and in degree. It is an important part of the training of the secondary-school teacher to bring these facts vividly to his attention.

5. Another distinct line of work in the preparation of these teachers is study of the secondary curriculum. Assuming that these prospective teachers have acquired a working knowledge of the subjects which they will have to teach, they need to be taught how to fit them to the student.

They need to know the value of a subject for knowledge and for discipline and how to make it most effective for both. They need to know it as a whole and in its parts and to be able to distinguish between the essential and the nonessential, that is, they need to have a sense of proportion developed in judging the relation of different subjects and of the parts of one subject to each other.

They need to know how to use the different activities of the mind in mastering the subjects. And they should be taught how the same goal may be reached by different routes, but that there may be a choice of routes. All this may be summed up in one word, method.

6. The work thus far suggested is all elementary in its character. A part of it is identical and another part is parallel with that given in normal schools. Beyond this the work should develop on the philosophical and historical side.

Education as a function of society is a subject which should appeal to college graduates with great force. If they have become interested in sociological studies, this will prove one of the most fascinating; and, if they have not been drawn in this direction, it will serve as a most attractive introduction.

The chief advantage of this subject is that it is equally useful for cultural and for purely professional or vocational ends. As a part of the outfit of a man calling himself educated, it ranks by the side of the study of politics or religion or literature or science or the family.

It may be studied in accordance with the same scientific method as these other subjects, and it may have the same broadening effect. To a young person engaged in preparing himself by special study for a special calling, it is of the greatest value to learn how that calling is a part of a larger whole, to see that one who enters upon it is not narrowing himself but is in reality entering one of the great fields of human endeavor, that the problems at home are parts of larger problems to which in all time men have given their supreme efforts.

7. It is at once the misfortune and the shame of the profession of teaching that so few of its members have attempted to think beyond the petty problems of their own classrooms, having lost themselves in the maze of schemes and methods and devices. I once spent a whole day with a company of distinguished secondary-school teachers out for a pleasure excursion, who used all the time before dinner, at dinner, and after dinner in discussing, weighing, measuring, and anathematizing some recent changes in the Harvard entrance requirements. The study of which I am speaking is not the so-called history of education which forms a part of the curriculum of many normal schools and teachers' reading circles. That is too scrappy and disconnected to have any value either vocational or cultural. Nor is it the study of great teachers and educational reformers. That is instructive and inspiring to teachers in any grade of schools, but, in my judgment, would better form a part of the teacher's private reading than be introduced into a training-school curriculum.

8. The work in psychology, general and special, the work in secondary-school method, and the study of school organization and management cannot be successfully conducted without adequate opportunities for observation and practice. Psychology abstracted from child-life and dealt with only as a *subject* can never be made to enter in any vital or vitalizing way into the mind of the student preparing to teach. Only as his psychological concepts reflect his own experiences and the experiences of children and youth whom he is studying will they be of any value to him in shaping his own teaching.

The student's observation should include children of all ages and in all grades of school at work and at play. Especially should it include the work of good secondary-school teachers. It should be directed equally to pupils and teachers that the observer may learn how a good teacher brings pupil and subject together and uses the subject to develop mental power. The student should be directed to observe the reactions between the personality of the

teacher and the personality of the pupil, and how the skilful teacher adapts himself and his work to the different personalities in his class and to the varying moods of the same pupil. These are subtleties of the teaching art which can only be conceived as they are exhibited in the classroom.

Included in the training there should be some opportunity for each pupil to try himself in the conduct of a class in one or more of the subjects of the secondary curriculum. The proper conditions of such experimental practice are similar to those required for practice in elementary schools and need not be detailed here.

9. Were all people in agreement as to the necessity for some preparatory training for teachers in secondary schools, and did the lines of work which I have sketched appeal to all, there would still remain the questions, Where can the training be best given? Should it be in a normal school which is also training teachers for elementary schools, or in a separate normal school, or in a department of a university? Each has its advantages. Much of the work of the existing normal schools is adapted equally to teachers in all grades of schools. The elementary psychology and the observation of children which accompanies it is general in its application, and most of the principles of school management apply equally to all schools.

Besides this the student would be in an atmosphere sympathetic toward professional training. The presence of a body of college-trained students would also react favorably upon the other classes. One objection to connecting this work with a college or university, namely, lack of sympathy on the part of the college faculty and authorities, is gradually losing its weight. This is shown by the recent action of the Ohio legislature in establishing a Teachers College at the State University at Columbus, and the more significant action of Harvard in establishing education as a department coordinate with philosophy of which it has heretofore formed a part. When education in its theory and practice comes to be regarded as legitimate a subject of collegiate study as are other lines of human thought and social endeavor, a school for training teachers may without humiliation to its faculty and students be organically connected with any university. So placed, the school would have some advantage. The use of college libraries and laboratories, the association with scholars, the cultural traditions would be useful on the side of the scholarship of the prospective teacher, and so placed the school might win its way more directly to the interest and sympathy of secondary-school teachers in whose schools and classes the work of observation and practice would have to be carried on.

On the other hand, both the university connection and the special school are open to the objection that they tend to perpetuate the caste spirit which in many quarters is now so strong. That secondary-school teachers should assume that for any reason they are a class apart is most unfortunate. What the public schools need is some unifying influence which shall obliterate all distinctions based on such accidents as age and grade and curriculum, and

which shall unite all teachers in the study of common problems and in the advancement of common interests. Some such influences are already at work.

It is doubtful if it would be possible or wise to prescribe a universal rule as to the associations under which teachers should be trained. That will prove to be the best place where, under a faculty broad enough to have studied all the fields of educational effort, with opportunities for observation which include children and youth of all ages and for practice in secondary schools of acknowledged excellence, in an atmosphere sympathetic toward every form of training, the students will come to feel that they are members of no mean profession, and will grow to some adequate conception that the work demands and is worthy of and will repay the most earnest and strenuous endeavor.

XI[1]

M. V. O'SHEA, PROFESSOR OF THE SCIENCE AND ART OF EDUCATION, UNIVERSITY OF WISCONSIN

1. *Requirement of professional interest and intention.*—In the improvement of the high-school teacher it is imperative that teaching in the secondary school be regarded as a serious profession, which cannot be entered on the spur of the moment by persons who are without other employment. In respect to its teaching force, the high school is now too much of a half-way station between the university and the bar, the hospital, the counting-room, and other interests. In this matter we can learn useful lessons from Germany, France, and other European countries. All our efforts at training secondary-school teachers must prove more or less ineffective until candidates come to us in some such a frame of mind and with such intentions as those usually have who are preparing for law or medicine or engineering or commerce. It is believed that if the requirements indicated in the following theses be met, the need expressed in this first one will be realized.

2. *Requirement of native fitness.*—Speaking generally, but slight attention is now given to personal characteristics in the selection of high-school teachers. Consequently they are very frequently defective in qualities of leadership. Most colleges and universities have no effective method of choosing those among their students who are by native endowment well equipped for teaching. Practically all who have secured a diploma, and completed the small amount of required study in the department of education, are certificated, regardless of their natural fitness for this special work.

It is imperative that the institutions that train high-school teachers should

[1] On a number of occasions the writer has expressed his views in considerable detail respecting various aspects of the training of the high-school teacher, and it seems appropriate at this time to treat the subject assigned him by presenting a series of theses without elaboration. If any reader should be interested in the arguments upon which these theses are based, he might glance over the following: "Teachers by the Grace of God" (*Journal of Pedagogy*, Vol. XIII, 1900); "Concerning High-School Teachers" (*The School Review*, Vol. X, 1902); "Psychology in the Training of Teachers" (*Elementary School Teacher*, November, 1904); "The Function of the University in the Training of Teachers" (*The School Review*, Vol. VIII, 1900); "Universities and Normal Schools in the Training of Secondary-School Teachers" (Part I, of *Fourth Yearbook of the Society for the Scientific Study of Education*).

adopt a plan whereby they may early discover candidates who do not meet the personal requirements, and dissuade them from striving to become teachers. The opinions of all who have had to deal with the student during his academic career should be secured, but the department of education should be specially responsible for the task indicated in this thesis. Altho the problem is a peculiarly difficult one, and cannot be solved completely under existing conditions in colleges and universities, still if the need be felt deeply more can be done than is now done in most places. But the universities must act in unison; no single institution can make great headway against the academic tradition that one can teach in a high school if only he has amassed a sufficient amount of formal knowledge in any subject.

3. *Requirement of scholarship.*—One cannot teach a subject unless he has thoroly mastered it. He must have a real, vital grasp of it, and not merely a formal or verbal knowledge of it. Teachers are often found giving instruction in subjects which they have acquired for purposes of securing a certificate and such instruction is always shallow, mechanical, ineffective. It amounts often to little more than memoriter drill on unintelligible technical terms.

Teachers in secondary schools should be certificated to teach not all subjects whatsoever, but only the subject in which they have shown special proficiency. To meet the necessities of teaching in small high schools, it will often be necessary for teachers to teach more than one subject; but in such case, the certificate should indicate the major subject (the candidate's specialty) and the minor subjects, not to exceed two in any case. The several departments of the university should be made solely responsible for determining which of their students have acquired such a genuine mastery of their respective subjects that they may be certificated to teach them.

A teacher's mastery of a subject must include an understanding of what aspects thereof are most appropriate for secondary-school students and what point of view in presenting the subject will prove most effective. To this end every teacher should be required to complete a teacher's course in the subject he is to teach, and this course should be conducted by one who is thoroly familiar alike with the subject, and with the nature and needs of secondary-school pupils. Mere advanced, technical courses should not be regarded as in any sense teachers' courses, as is now the case in some universities. The teacher's course should be regarded as graduate work, as indicated in the following thesis.

4. *Requirement of studies in education.*—The experience of nations has shown that in order to achieve the highest success teachers should understand the subject as well as the material of education, and should become possessed of what is known respecting methods of economy and efficiency in organizing and managing a class or a school or an educational system. Further, the teacher is a servant of society in a very vital sense, and he should be made conscious of his opportunities and duties in this respect. To meet these requirements, then, every teacher should complete courses treating of the principles

of human nature in general, and of the nature of secondary-school pupils in particular. He should also complete a course treating of the psychology of learning under the conditions of school education. These courses should confer upon him greater efficiency in adjusting his subject as a whole and in each part to the needs and capabilities of his pupils. Next, he should complete courses treating of the history and principles of education, so that he may realize what are the aims of educational work, viewed in the light of contemporary thought, and how these aims have been developed. These courses should make him conscious of the supreme ends to keep in view in his teaching, and what should be the relation of his subject to the other work of his pupils and of the school as a whole. Finally, the teacher should complete a course treating of his proper relations to the extra-school interests in the community in which he teaches.

These professional studies may best be pursued as graduate work. The training of the secondary-school teacher will be seriously defective so long as he completes both his academic and his professional studies during his undergraduate course. The courses in education described above should occupy two-thirds of a graduate year. If the candidate spends no time in graduate study, as is the case generally at present, then these professional studies should occupy an equivalent of one-half of his senior year.

5. *Requirement of observation and practice.*—It is universally recognized that effective instruction in medicine, law, engineering, agriculture, and the like requires opportunities for concrete demonstration, and for practice to a limited extent at least. Teaching is no exception in this regard. It is, however, a fact that education, concerned as it is with the exposition of principles for effective instruction, is more seriously handicapped than any other subject in observing the principles it expounds. There is need in the first place of an educational museum, wherein may be displayed specimens of all useful educational appliances, illustrative materials, textbooks, etc. It is imperative, in the second place, that there be in every institution training high-school teachers a fully organized and well-equipped school typifying the school system in which students will teach. This school should be constantly utilized to give definiteness, concreteness, and vitality to instruction in every phase of educational theory and practice. So far as feasible it should be utilized also for the testing of educational theories at present in dispute. Finally, it should be utilized for the purpose of initiating the novice in the practice of his art. It will not ordinarily be possible or desirable to perfect him in technique, but his special needs can be discovered, and he can be put in the way of curing his faults by his own efforts while he is actually in service.

The schools of observation and practice should be regarded as laboratories for the work in education, and in no sense as schools preparatory to the university. They should be under the control of the department of education, which should be responsible for curricula and methods of teaching and discipline. So far as possible the department of education should secure the

active co-operation of all departments of the university having in charge subjects taught in an elementary way in the schools in question. The teachers' courses in the university should be presented with constant reference to the work done in these schools.

5*a*. Wherever it is at all feasible, the university should enter into relations with the high schools in its vicinity so that candidates may have some practice under ordinary public-school conditions. The university should contribute to the salaries of a certain number of teachers in these high schools, to the end that unusually competent persons may be secured, who may serve the university as critics of practice teachers. These critics should be appointed by the university, upon the recommendation of the department of education, and subject to the approval of the board of education in charge of the high school. Practical work of the character indicated should occupy at least one-third of the time which the candidate devotes to professional studies, and it should be regarded as absolutely essential to the efficient training of high-school teachers.

XII (*special*)

REQUIREMENTS AND STANDARDS

FREDERICK E. BOLTON, PROFESSOR OF EDUCATION, STATE UNIVERSITY OF IOWA

I. Requirements for High-School Certification.

II. The University and the College as Training-Schools for High-School Teachers.

III. Standards in Germany.

IV. Standards Suggested for American Schools.

In beginning to prepare this paper an attempt was made to secure thru a questionnaire statistics showing the specific kind of training and experience which the high-school teachers have actually had in a number of typical states. The inadequate returns received made any exhaustive statistical study impossible. In only a few states has any attempt been made to gather such data. Some state superintendents replied in such a way as to indicate their probable feeling that such information would be entirely superfluous. But not until the statistics can be arrayed so as to show the glaring lack of uniformity and how many teachers are below even moderate standards can we expect to improve conditions. School boards and legislatures must be convinced thru unequivocal testimony that woeful deficiencies exist often where the public boasts the most. About buildings and grounds the popular mind may have some intelligent opinions, but the ordinary school public does not discriminate between the expert teacher and the time-server. In the minds of the people, so long as friction is avoided, any teacher is considered a good teacher.

Failing to secure the adequate data concerning the actual preparation of teachers in service, I have investigated the laws of all the states to find the

legal provisions concerning high-school teaching. We should bear in mind that the actual preparation made by many, even a majority, is much better than that demanded by statutes. Local demands in the better cities are naturally in advance of legislation. Statutory provisions can seldom be secured until the wisdom of the requirements has been rather generally demonstrated. There is very little constructive legislation, especially school legislation. Legislative bodies in old-settled states are very conservative and merely reflect what they believe to be public opinion by confirming thru statutory provisions what is well established in practice. Since they are usually so ignorant concerning educational needs it is seldom possible to convince them of desirable legislation until long after various localities have proceeded way beyond the measures enacted. In new states where traditions do not fetter and public opinion is little crystallized much more constructive legislation is secured than in the older states.

As was believed, most of the states were found to be without legislation differentiating the high-school teacher from any other. In many school codes the term high school does not appear. This branch of the public school system is a product of evolution which has come largely without legislative enactment. Localities developed at first simply "upper rooms," "higher departments," etc., and then bestowed the name high school without waiting permission or measurement by state authority.

Thus, singularly enough, in most states, altho state certificates and diplomas are awarded to those who seek them, yet nobody is required to have them. Legally, the one possessing the lowest grade of county or town certificate may teach in the highest grade of school. Many cities have secured state authority to regulate the certification of their own teachers and usually have differentiated the certificates for the various grades of work. There is a crying need now for all states to make the differentiation. There is also great desirability of securing uniform laws in all the states so as to secure inter-state comity in matters of certification.

A few pioneer states have secured desirable legislation relating to the certification of the various grades of teachers and it might be parenthetically observed that these states are already forging ahead in educational matters in a variety of ways.

I. REQUIREMENTS FOR HIGH-SCHOOL CERTIFICATION

In the following paragraphs mention is made mainly of those states which have specific legislation determining the qualifications of high-school teachers. In general, where the laws simply state that all teachers must possess a legal license and do not distinguish between elementary and secondary no mention is made of the states. A few others are mentioned because it was possible to secure definite statistics concerning the teachers in service.

In Arizona only those holding the diploma of the Territorial Board of Education or the Board of Education of the Normal Schools of the territory

are eligible to teach in the high schools. Diplomas and state certificates from the other states may be recognized by the Territorial Board.

Colorado demands that all who teach in the high schools of that state shall take a county examination covering all the branches taught in the high school.

In the District of Columbia all high-school teachers must have a special certificate which qualifies the holder for that grade of work only.

In Connecticut there are 4,316 teachers in the state of whom about 1,400 are normal-school graduates and about 400 graduates of colleges and universities. Most of these 400 are teaching in high schools. Inasmuch as there are only 66 high schools in the state it is probably true that most of the teachers in the high schools are college or university graduates.

California has set the highest pace in the United States with reference to the qualifications for high-school teachers. Under statutory provisions the State Board of Education grants all certificates for teaching in the high schools of the state. These may be obtained by examination or otherwise but "no credentials shall be prescribed or allowed unless the same, in the judgment of said board, are the equivalent of a diploma of graduation from the University of California and are satisfactory evidence that the holder thereof has taken an amount of pedagogy equivalent to the minimum amount of pedagogy prescribed by the State Board of Education of this state, and include a recommendation for a high-school certificate from the faculty of the institution in which the pedagogical work shall have been taken." California accepts the diplomas from all the universities belonging to the Association of American Universities, and also from fifteen other selected colleges and universities thruout the United States, provided the graduates have taken courses in the theory of education, or have had actual practice in teaching under supervision of the pedagogical faculty, equivalent to twelve hours per week for one-half year. Graduates of all the accepted colleges not belonging to the Association of American Universities must have completed subsequent to graduation one-half year of advanced academic or professional (pedagogical) work, in residence, either at the same institution or at some other accepted institution, or in lieu of such graduate study, have taught with decided success, as regular teacher or as principal, at least twenty months in any reputable school, elementary or secondary. After July, 1906, at least one-third of the prescribed pedagogy shall consist of actual teaching in a well-equipped training-school of secondary grade, directed by the department of education. After July 1, 1908, practice teaching in a school of the grammar grade in connection with the California state normal schools will be accepted as an equivalent.

In Florida, high schools cannot be recognized as such unless the teachers employed to give instruction therein are competent to teach the subjects required by the official course of study, and no school will be granted state aid unless such teachers are provided. While it is not now deemed practicable to require all such teachers to hold state certificates, it is recommended that preference always be given by boards to the holders of such certificates.

In Iowa, the most democratic and individualistic state in the Union, there is utter lack of uniformity. All depends upon local autonomy. The term high school does not appear in any legislative enactment, there is no definition of the term except that which each community chooses to give to it, and the state superintendent's office has no authority to regulate its courses or prescribe qualifications for the teachers employed. Any one possessing a third grade county certificate may legally teach in any high school in the state. Notwithstanding this chaotic condition of educational legislation the state has many high schools which are unexcelled anywhere. The wealth of the state, the life in small cities possessing large rural population within a ra ius of a few miles of each, the uniformity of nationality, the lack of slums and factory districts give natural advantages which would easily give it with proper legislation the greatest school system of the United States. The state is suffering because of its prejudices against any form of centralization of power.

There are in the state about 650 graded schools which call themselves high schools. Nearly all of these might become high schools if the proper teaching force were employed, proper equipment secured, and a little effort made to enlist the interest of the rural population in the immediate vicinity. This has been demonstrated in many small villages where they have become awake to the possibilities. As it is, not more than 250, judged by proper standards, have any right to be called high schools. There are 185 schools on the accredited list of the State University. In these there are 879 teachers, including the principals and superintendents. Of these 453 are university or college graduates, 189 have had from one to three years in some college, 84 are normal-school graduates only. The remainder have had very little academic or professional training. Regrettable as it is, one in fourteen or one teacher in every third accredited school has had no institutional training beyond that afforded by the high school, and that usually in the home school. Of the total number employed 332 had been teaching ten years or more, 265 had five or more years' experience, while 61 were beginners. Statistics from all the schools which have any claim to the title of high school would show a much smaller number of college graduates and many more raw recruits.

Louisiana definitely recognizes high schools and makes an attempt to secure the best quality of teachers for these schools. In 1892 a law was passed imposing a penalty on all local school boards who failed to give preference to state normal-school graduates and graduates of colleges when employing teachers.

In Maine, according to the laws of 1904, the highest grade of state certificate is necessary to teach in any free high schools of the state. Candidates who are college graduates or graduates from the college preparatory course or its equivalent in a first-class academy or high school, and whose average rank is 90 and whose rank in any subject is not less than 70 will receive a certificate of the highest grade. Others who are not graduates but whose rank is excep-

tionally high, who can teach high-school subjects, including at least one ancient and one modern language, and who have taught successfully in high school, may receive a certificate of highest grade.

Massachusetts has 262 high schools requiring 1,820 teachers. Altho the laws do not specify any particular grade of certificate the sentiment of the people has secured a high grade of teachers. Of the teachers in the high schools 1,410 are college graduates. It is safe to assume that the remaining 410 are at least normal-school graduates. Only 98 have taught for less than one year.

Minnesota requires that any teacher employed in a state high school must hold a first-grade professional state certificate, issued either on a collegiate diploma or upon examination. However, the state superintendent may issue a permit, valid for one year, to high-school teachers who have not had the necessary teaching experience in Minnesota to entitle them to a first-grade professional certificate but who are otherwise qualified. A first-grade state professional certificate may be obtained by graduates from the University of Minnesota or from another university or college of equal rank. The applicant must first have secured a state first-grade certificate and must also have taught with success not less than nine months in a public school in a state. Applicants who are not graduates must have the teaching experience and the first-grade certificate noted above, and, in addition, will be required to pass a successful examination in the following branches: astronomy, bookkeeping, botany, chemistry, English literature, general history, geology, history of education, logic, moral philosophy, political economy, psychology, rhetoric, school economy, school law, solid geometry, trigonometry, zoölogy. A state professional certificate of the first-grade is valid to teach in any public school of the state, including high schools. It is made valid for periods ranging from one year to life, according to the merit of the holder. A certificate of graduation from the department of pedagogy at the State University entitles the holder to teach in any public school in the state for a period of two years immediately following graduation. At the end of such period the certificate may be indorsed by the president of the State University and the state superintendent of public instruction, when it becomes a life certificate. It is of interest to note that graduates of Minnesota state normal schools or other normal schools of equal rank outside of the state, are not entitled to teach in the high schools. They receive first temporary and then life certificates which are valid in any public school in the state below the high school department. The state teachers' first-grade certificate, valid for five years to teach in any public school in the state, will not qualify the holder to teach in the high school or even for the principalship of a state graded school. These rigid regulations have raised the quality of the teaching force and the salaries of teachers in Minnesota very materially.

According to figures furnished by State High-School Inspector Aiton, there are 192 high schools in the state employing 870 teachers, including the super-

intendents. Of these 733 are graduates of a college or a university and only 56 are graduates of a normal school. It is well known that very generous state aid is provided, whereby each standard high school receives $1,500 from the state treasury. This state aid affords better salaries and attracts better teachers. The state aid and the high standard of scholarship demanded have put Minnesota in the very front rank educationally.

In Montana it is provided that no person shall be employed as a teacher in a high school or as the principal teacher in a school of more than two departments who is not the holder of a professional county certificate or the holder of a life state diploma issued by the State Board of Education of Montana, or who is not a graduate of some reputable university, college, or normal school.

New Jersey provides that all teachers in the high schools must possess either a first-grade county certificate, a first-grade city certificate, or a state certificate. The first-grade certificate requires an examination in the theory and practice of teaching, New Jersey school law, the history of education, and general history, in addition to the usual branches required for a second-grade certificate. The lowest grade of state certificate involves an examination equivalent to that required for the first-grade county certificate and, in addition thereto, psychology, plane and solid geometry, literature, botany, and free-hand drawing, or in place of one or more of these subjects such other subjects as the State Board of Examiners may require. This lowest or third-grade state certificate is valid for seven years.

In Nevada no one may teach in a high school who does not possess either the county high-school certificate, which is good for four years, or a state certificate granted from the Nevada State Normal School or by a reputable university or college from which the bachelor of arts degree has been received. Pedagogy is also required in the course. The state life diploma also is a valid license to teach in any public high school.

New York will not allow teachers to hold positions in the high schools unless possessed of some specified grade of certificate. At the present time they accept for high-school teaching what are known as the training-school certificate, the state certificate, the state special certificate, the normal diploma, the college graduate certificate, and the college-graduate professional certificate. College graduates are given a provisional certificate valid for two years. If they pass an examination upon psychology, history of education, principles of education, methods of teaching, during those two years they may be awarded a permanent certificate. Those college graduates who have completed a course in pedagogy outlined by the state receive a certificate valid for three years, at the end of which the same may be indorsed by the state commissioner of education and made a life certificate. In New York 39 per cent. of the high-school teachers and 43 per cent. of the principals are college graduates.

Nebraska has taken a most important step toward providing competent teachers for the high schools of that state. On and after September 1, 1907

no person shall be granted a certificate to teach in the high-school department of any high-school district or in the high-school department of any city school district in the state who is not a graduate from a regular four-year course of a college or university, or a graduate from the advanced course of a college, university, or normal school in the state authorized by law to grant teachers' certificates, or who does not hold a professional state certificate obtained from the state superintendent on examination. During the interim between now and August, 1907, high-school principals and city superintendents may obtain a first-grade county certificate, valid for three years, which will make them eligible to teach in any high-school district or city school district until September 1, 1910.

Ohio, which long lagged behind in the matter of educational legislation, has probably outdone all other states in several respects. One of these is in accurately defining high schools and colleges. Then, to be consistent, the qualifications of high-school teachers have also been thoroly defined. All teachers in the high schools must possess some form of a high-school certificate. This certificate may be issued either by the county or the state. All county high-school certificates must include the usual branches required for a third-grade certificate, and, in addition, literature, general history, algebra, physics, physiology, and four branches from the following list: Latin, German, rhetoric, civil government, geometry, physical geography, botany, and chemistry. In addition, the certificate must show that the candidate "possesses an adequate knowledge of the theory and practice of teaching." Special high-school certificates are issued, valid only for the branches mentioned in the certificate, but it is further provided that no person be employed as a special teacher of music, drawing, painting, penmanship, gymnastics, German, French, the commercial industrial branches, in any elementary or high school who has not a certificate of good moral character and a certificate of proficiency in the theory and practice of teaching. Cities which have the power to grant certificates must observe similar conditions. The state certificates are, of course, of a still higher grade.

Texas allows cities of five hundred or more school population to establish their own boards of examiners which issue different classes of certificates corresponding to the grade of work to be taught. The high-school certificate is a prerequisite to teaching in the high school and is valid for high-school work only. State certificates are recognized by these boards. Diplomas from the State University which certify to the requisite amount of pedagogical work are valid as state certificates.

In Washington, D. C., certificates are limited to special grades of schools. The certificates are issued by the city. Only a special certificate will be accepted for high-school work. Graduation from the Washington normal schools and other approved normal schools is recognized toward certification.

In Wisconsin all teachers must have some form of state certificate to be qualified to teach in the high schools of the state. The state certificates are of

two grades—the limited five-year certificate, and the life certificate. These certificates may be gained by examination or thru countersignature of state normal-school diplomas, college diplomas, or university diplomas. A diploma granted upon the completion of a collegiate course in the State University of Wisconsin or from the full course of any Wisconsin normal school is valid as a temporary certificate for one year and after countersignature by the state superintendent is validated as a life state certificate. Diplomas granted by other colleges and normal schools, within and without the state, whose course of study are equivalent to those recognized in Wisconsin may be recognized in the same way as those issued in the state. Life state certificates issued by other states may be countersigned by the state superintendent of Wisconsin upon the recommendation of the State Board of Examiners, and thereby become life certificates in the state. The diploma granted upon the completion of the elementary course of the state normal schools qualifies the holder only for positions as assistants in four-year high schools or as principals of three-year high schools. All principals and all teachers of four-year high school courses must possess an equivalent of the life state certificate. Assistants may secure a special state certificate by first securing a county certificate in the county where they desire to teach and in addition passing a state examination upon all branches which they teach and which are not included in the county certificate. Superintendents must all possess the unlimited state certificate. It will be thus seen that the entrance to teaching in the high schools of Wisconsin is very carefully guarded. The rigid provisions have raised the qualifications for teaching in Wisconsin very materially.

The following figures show the qualifications of teachers in the Wisconsin high schools for 1903 and 1904:[1]

Attended the Wisconsin State University	94	
Attended other colleges	45	
		139
Attended a normal school	71	
Hold life certificates	3	
		74
Total		213

Table showing number of teachers including principals in the four-year free high schools with highest school attended:

Attended the Wisconsin State University	229
Attended universities and colleges outside the state	85
Attended Beloit College	30
Attended Lawrence University	40
Attended Ripon College	13
Attended Milton College	3
Attended Wisconsin normal schools	268
Hold licenses and certificates of approval or state certificates on examination	131
Total	799

[1] Eleventh Biennial Report of the Department of Public Instruction, 1904, p 85.

Concerning qualifications of principals of three-year high schools in the year 1903–4:

Attended a normal school and hold normal-school diplomas	23
Attended a normal school and hold elementary certificates	3
Hold life certificates	5
Holds a limited state certificate	1
Holds a university diploma	1
Total	33

Professional requirements for high-school certificates.—Statistics concerning the actual amount of professional training of teachers are even more difficult to secure than those concerning academic qualifications. In those states where no differentiation is made between the licenses required of elementary teachers and high-school teachers there is little incentive to gain high-class certificates. In Iowa the third-grade certificate is the only legal requirement and a comparatively small number apply for state certificates. The main incentive to secure the state certificate is the fact that the state certificate is valid in any county of the state. Now that the county certificate will be valid in any county in the state the number of state certificates will doubtless be still further decreased. It is also desirable in many states when teachers move and find the state certificate necessary in the new state.

County certificates in all states include some test on the theory and art of teaching, or didactics, as it is frequently called. But most county examinations in the theory of education are a perfect farce. The questions seldom require any technical knowledge of pedagogy. Anyone with an ounce of common sense could answer them correctly. Most frequently when books are prescribed in the reading circle or by the superintendent as a basis for the examination some general book like *Jean Mitchell's School* or *The Evolution of Dodd* is selected. While these are good enough in their way and would afford a few hours pleasant reading and stimulate the better emotions, yet they give no real principles upon which to base a theory of education. Even in the state examinations the primer of the subject has scarcely been touched. In a few states definite syllabi are prepared giving an outline of the subjects, particular books to be read, etc. This plan gives the candidate a definite plan of work and sometimes happily convinces them that the surest and soundest method of preparing is to go to some good institution where they can receive proper training.

Without exception all states include some professional work in the examinations for life certificates. A few (New York, for example), grant provisional or temporary state certificates to college graduates, even tho they have not included professional work in their course. Thus all who secure the life state certificates have gained some insight into pedagogical subjects. The subjects prescribed vary greatly, tho the history of education and psychology are usually included. As indicated above, the amount required is very meager. Qualitatively it is usually antiquated.

In most states which validate college diplomas as state certificates a year's daily work in psychology and education or a year in the latter, following a year

in the former, is required. Even in those states the professional work required when the certificate is gained by examination is very meager. It is in no way the equivalent of the work done in the year or more in college. Any college graduate could prepare for the professional examination ordinarily given thru two weeks' continuous careful reading of some elementary texts. This is entirely wrong and very inconsistent. The examinations in other subjects like botany, physics, and mathematics are put upon a technical basis and generally the questions are modern in nature. But the professional examinations are decidedly irritating to modern teachers of those subjects. Even an imperfect knowledge of a primer of the history of education, psychology, and of method would enable the candidate to pass.

New York state has taken an advanced stand on the matter of professional training and prescribes the following work for the state certificate: in addition to graduation from college, general and educational psychology, ninety recitation hours; history and principles of education, ninety hours; methods in teaching, sixty hours; observation, twenty hours. This would make a total of about seven hours a week for a year, or fourteen semester units. As previously mentioned, graduates may receive a provisional certificate for two years if they have not had the professional work, but before it can be made a permanent certificate they must pass an examination upon the professional work indicated. Those who secure state certificates by examination are required to pass a rigid examination in the professional subjects. This examination is made thoro if we are to judge from the syllabus issued by the state department. The syllabus contains a good outline of all the subjects and a fine list of references. It is thoroly technical and academic in character, and it sets a high pace for all other states. Several universities in New York, and doubtless several colleges, have arranged their work in the department of education to correspond with the state requirements. I have at hand outlines of the work as prescribed at Cornell, Syracuse, and at Columbia.

All who receive the Teachers College diploma at Columbia must have completed three semester units of psychology, three units of educational psychology, three units in the history and principles of education, and three units in the theory and practice of teaching some special subject. Those who receive a degree from the College of Education in Chicago are required to include for graduation eight majors in education, including the history of education, principles of education, educational psychology, and a course in general psychology.

The University of Wisconsin, whose diplomas are recognized as state certificates, provided prerequisite professional work has been included, requires ten semester units—three units in psychology, three units in either the history or principles of education or advanced educational psychology, and four units which may be elected from either the department of philosophy or the department of education.

The state of Texas recognizes the diploma from the University of Texas,

provided the prerequisite professional training has been included. The university prescribes as the professional work two semester units of school management, four units in the methods and principles of teaching, four units in the psychology of education, two units in the psychology of development, and six elective hours in the department of education.

California not only accredits the work of the university toward the state certificate, but will not grant a certificate to teachers in the high schools unless the candidate is a graduate of the university of California or an approved equivalent institution. In addition to the work required for the bachelor's degree the candidate must have completed at least one year of graduate study in the University of California, or an approved university. This year of graduate study shall include one-half year of advanced academic study, part of the time at least being devoted to one or more of the subjects taught in the high school, and the remainder of the time must be spent in a well-equipped training school of secondary grade, directed by the department of education of the approved university. This represents the high-water mark of requirements, both academic and professional, for teaching in the high schools in the United States. The professional work required by the department of education in the University of California includes three semester hours of the history of education, three hours in a study of secondary education, two hours of methods, and four hours in practice teaching. The department urges the study of philosophy and psychology as prerequisites, but does not require them.

The Teachers College of the University of Missouri, whose diplomas are recognized as life state certificates, requires candidates to complete three semester hours of experimental psychology, and twenty-four hours of education. The work in education must include three hours in the history of education, the theory of teaching three hours, and from three to nine hours of practice teaching. In addition to the psychology and education requirements, each candidate must complete at least eighteen semester hours in each subject in which the special certificate is sought. This gives almost ideal requirements for the state certificate to teach in high schools.

II. THE UNIVERSITY AND THE COLLEGE AS TRAINING-SCHOOLS FOR HIGH-SCHOOL TEACHERS

Ever since secondary schools were first founded the university and the college have been training-schools which have furnished the majority of their teachers. The German secondary schools have always been manned by the best products of the German universities and that tells the story of Germany's enviable position in secondary education. Since the time of the founding of the "great public schools" in England, Oxford and Cambridge have furnished all the teachers for them. Tho they have not had the professional training of Germany's matchless schoolmasters, yet they have been men of fine culture and broad training. In America Harvard and Yale in New England and William

and Mary in the South at once began to place their graduates in the "grammar schools," like the Boston Public Latin School, and later in the academies. The influence of these men representing the best culture of the times has had a marked effect. In the secondary school where inspiration and outlook are so essential to the life of the school the breadth of view which comes from college life is indispensable. It is lamentably true that these zealous young men and more recently women have often been woefully lacking in pedagogical insight, but their scholarship and vital touch with life have been more valuable than the mere drillmaster's arts.

With the advent of the normal school in 1839 an attempt was made to correct the deficiency in the pedagogical training of teachers. Naturally the pendulum swung a long way in the other direction and methods and devices became a fetish. The normal schools went to seed on methods. Devices and details were eagerly pursued when principles should have been sought. The drillmaster became the ideal class teacher and the machine method-master the ideal superintendent. Normal-school graduates everywhere in the eighties and nineties began to teach in the high schools and to occupy the superintendencies. When I was graduated from a Wisconsin normal school in 1890 graduates did not think of looking for a grade position, unless they happened to live in a large city. High-school positions and good principalships and superintendencies were readily secured by the men. Similar conditions obtained in all adjoining states. At the present time conditions are so changed that it is only in exceptional cases that the graduate of a normal school begins in a high school. Occasionally they begin in a small high school which does two or three years of high-school work. But usually the normal graduate commences in the grades or goes to some university to complete work for graduation. This makes quite an ideal course of training, for at the normal schools they become imbued with the teaching spirit and their university work gives them a scholastic baptism. Happily a new era has dawned in normal schools with reference to methods. They have been touched by the new spirit in psychology and child-study and are now, in general, seeking principles instead of devices.

The normal school, generally speaking, is not fitted to train high-school teachers. There are, of course, some schools which are much better equipped than others. There are some large and aspiring ones which are lengthening their courses, providing laboratory and library facilities to such an extent that they are better able to accomplish this work than the one-horse colleges, but the organization of a normal school must ever be such as to limit its function to the training of elementary teachers. Just as soon as it transcends this function it ceases to be in the highest degree effective in training elementary teachers, for which they have all been designed. It then becomes an additional state college or university, a duplication which most states do not desire.

The high-school teacher needs, above all, a broad outlook upon life, deep and thoro scholarship, and liberality of attitude which is best promoted by the

university atmosphere. The normal school, with its ten-weeks' courses and ceaseless flitting about, its many exercises per day, the constant emphasis upon method rather than content, the excessive attention to the little details such as are largely necessary in training the immature and those who are to deal with details of elementary work, all militate against sound scholarship and liberality of mind. Most normal schools are so organized that students are admitted from the country school. These students are in constant contact with the most advanced. This necessitates leveling down to the plane of the most immature.

The only place where the science of education can be adequately taught is in the university or in the few colleges. The institution must be equipped with a department devoted solely to education. No man straddling the chairs of philosophy, psychology, logic, ethics, and education can even have come to an independent educational philosophy, much less develop it in others. One burdened with several chairs and all the subjects within each may have students recite from textbooks but it is lame teaching. The work in education cannot even be done well where one man is required to cover all subjects within the department.

President G. Stanley Hall says:

> I think preparation of secondary teachers should never be permitted in a normal school where primary teachers are trained, but should be entirely given over to the university. This is essentially the case in Germany. . . . . I think there is very little in common either in methods or matter in the curriculum proper for these classes of teachers.[1]

Professor DeGarmo says:

> The most obvious distinction between the normal school and the university as a training ground for secondary teachers is that the normal school is obliged by its conditions, its primary aims, and its traditions, to devote its chief energies to the preparation of elementary teachers. Only in a large and general way can it devote more than a fraction of its attention to the training of teachers for secondary schools.[2]

These differences he regards as so fundamentally opposed in nature that any attempt to unite the two will result in the decreased efficiency of the normal school.

President Van Liew, who speaks on the question after much experience as a normal-school man and who is a scholar of distinction, says:

> The weakness of the normal schools, especially in the matter of training secondary teachers, lies in its inability to supply large general culture. So far as secondary teachers are concerned, at least, it ought not to try it.[3]

Charles B. Gilbert wrote:

> The ideal place for the training of secondary teachers is a teachers' college of some sort attached to a university as a co-ordinate part, utilizing all the scholarly advantages of the university and adding the special training needed to make teachers.[4]

President Thompson of Ohio State University, in discussing the great need of developing teachers' colleges in connection with the universities, said:

[1] *Fourth Yearbook*, I, p. 84.
[2] *Ibid.*, p. 89.
[3] *Ibid.*, p. 92.
[4] *Ibid.*, p. 102.

I think it goes without discussion that for the cause of education the teachers in our high schools should have the university spirit and that they ought to have college training. This argument is based not so much upon the particular subject studied as upon the superior value of association with university faculties and university methods. Our high schools have suffered for lack of such teachers on the one hand, and on the other hand they have suffered from having too many teachers whose normal-school training or other education has not been with a view to training them for high-school work. It would seem, therefore, that in some form the teachers' college ought to be a part of the university organization.[1]

In the same meeting President Babcock of Arizona, who has also had long experience with the Minnesota and California systems, said:

If the normal schools are going to train their students for grade-work frankly, honestly, without any pretensions or conceit, those who desire to go on for high-school work must go to the university, to the colleges or teachers' colleges, which provide that sort of training.[2]

My own belief in the necessity of university training for high-school teaching was definitely developed before I became a member of a university faculty. Immediately upon graduation from one of the best normal schools in the country I became a high-school principal. I soon came to the belief, and many times expressed it, that normal-training was insufficient preparation for such work. At the earliest possible moment I supplemented my training by a university course before re-entering the public-school service. Later I was for two years a member of the faculty in the same normal school. I believe my colleagues there will bear witness that I continually urged that our graduates ought to complete a university course before beginning high-school work. That the function of the university and the normal school must be different, I believed then as firmly as I do now.[3]

The experience of the New York State Normal College ought to be valuable in determining the suitability of the normal school or the college in preparing high-school teachers. The Normal College was granted a charter in 1890 empowering it to confer degrees in pedagogy, hoping thereby to attract college and university graduates who would spend at least a year in post-graduate study along strictly professional lines. Those expectations have not been realized. During one year forty such students were in residence, but the number has declined because pedagogical courses in the meantime have been developed in colleges and universities.

It was thought, too, at the time when the Normal College was chartered that the graduates from the classical courses offered at the Normal College would find positions in the high schools, but the demand for teachers of more liberal culture has increased so much since 1899, that probably not more than one-half of the graduates have found employment in the secondary schools of the state. Consequently, the Normal College has not been able to meet the expectations or the demands of the state for college-bred teachers who have a proper knowledge of the science of education and the principles of pedagogy. . . . . The belief of educators, philosophers, and educated people alike has crystallized into the conviction that teachers who are to be employed in the high school, normal schools, for teachers' training-classes, for teachers, and as instructors in manual

[1] *Trans. and Proc. Nat. Assoc. of State Universities*, 1904, p. 43.

[2] *Ibid.*, p. 64.

[3] My views of that time may be seen in an article in *Education*, May and June, 1898.

training, domestic science, art, and other special subjects should be college graduates with a thoro knowledge of the general principles of pedagogy and the most advanced and most valuable methods of teaching their specialties.[1]

The report points out that the normal schools are not equipped for preparing teachers for the high schools. In consequence all of the elementary work at the State Normal School has been abolished, the requirements for admission made equal to those maintained in eastern colleges, and a four-years' course of study in the liberal arts and in pedagogics has been established.

Tho there are many splendid teachers in our best high schools and a few in the smaller schools, yet the fact remains that our boys and girls in the most critical period of their lives are in control of immature, inexperienced youngsters. Some of these youths have large native ability, and special potential teaching qualities, and ultimately become good teachers. Some have good academic training also and after expensive experimenting upon the children become first-class teachers. Their enthusiasm, vigor, cheerfulness, and general culture are all qualities that we ought to retain, but the fact remains that our optimism regarding secondary-school teaching must come from viewing the select few rather than from conditions as a whole.

The greatest defect in our American schools is the lack of uniformity of requirements for teaching. Under our ultra-democratic notions some properly fitted teachers enter the work, but they are obliged to come into competition with a majority who are unprepared. Frequently because of ignorance on the part of boards and often because of nepotism the incompetent cheap teachers drive the worthier ones out of the market or force them down to the lower level of salaries. The inadequate compensation is the great deterrent which keeps thousands of the most promising from ever entering into the undesirable competition.

We are greatly in need of legislation in all states which will permit only the absolutely well-trained to enter the ranks. The cry frequently raised against such legislation that the schools would be without teachers is sheer nonsense. When our colleges and universities can find such abundant supplies of doctors of philosophy for every subordinate instructorship there need be no difficulty in securing all the adequately prepared teachers necessary, if liv'ng salaries are offered. Legislation eliminating the unfit would raise the salaries. In all those states having laws requiring teachers to possess high-grade certificates the salaries are demonstrably above the average paid in those states without such protective legislation.

Although the statutory provisions are very insufficient in requiring adequate preparation for teaching in the high schools, yet many cities have made regulations which require all to be college graduates. In Ft. Dodge, Iowa, for example, all are required to be college graduates and to have had two years' experience. There are hundreds of cities large and small where either

[1] *An. Rep. Ed. Dept.*, p. 274.

definite legislation to this effect has been enacted or else the practice has become local common law.

The North Central Association of Colleges and Secondary Schools has had a very marked effect in raising standards of teaching in the high schools. No school can become accredited unless all the teachers are college graduates or the equivalent One high-school inspector wrote me :

> We have about fifty high schools on the north central list and many more are trying for admission. This requirement has been most wholesome in its effect on our schools, and has done more than any other one provision in our recent educational history. Of course there has been a gradual increase in the number of college graduates occupying high-school positions, but it has simply been the law of evolution, a sort of triumph of the fittest. The normal school . . . . has in the past filled a good many positions, and many of the school authorities have been unable to distinguish between them and graduates of other institutions. The influence of the North Central Association, the increased efficiency of our denominational colleges and the gradual increase of salaries have all contrived to drive them (the normal-school graduates) out of the field of the best schools except in a few isolated cases.

III. STANDARDS IN GERMANY

The training required of the German secondary-school teacher is much more ideal than that demanded of teachers in the same kind of schoolwork in the United States. In Germany advanced, critical, academic, and professional scholarship are absolute prerequisites to teaching in the secondary schools. No deviations are allowed. No mere pull with the board will suffice, for the matter does not rest with the local board, but with the state authorities.

In Germany all secondary-school teachers are university trained, as they ought to be everywhere. The candidates for a position in the secondary schools must have had at least three years of university study before being admitted to the examination for the state certificate, which all must possess. This means a high grade of academic scholarship since university entrance is conditioned upon graduation from the secondary schools, which is fully equivalent to the completion of the sophomore year in our very best colleges. Therefore every teacher in the German secondary schools has done work equivalent to that required for our masters' degree. As a matter of fact, the majority of German secondary-school teachers have studied more than three years in a university. The majority are possessors of the doctorate degree which cannot be secured with less than three years of university work and usually requires four or five. Each teacher is required to present a major line of work and a minor. The examination in the minor must reveal complete comprehension and mastery of the subject far beyond any limits to which it is taught in the secondary school. Even with this preparation they are not permitted to give instruction in that branch in the advanced classes of the school. In the major subject not only thoro mastery is required but there must be evidence of critical and exhaustive research to the extent of becoming not only a master but an authority. A thesis in the major must reveal independence of method, acquaintance with the history and literature of the subject. The thesis and

the examination are intended to test the candidates' knowledge of its philosophic aspects. In a general way we may say that the academic training of the German secondary-school teacher is quite on a par with the attainments of instructors in our best colleges, and the majority are comparable with well-seasoned professors. Promotions are so slow there that the majority are about thirty years of age before securing permanent positions.

Knowledge of subject-matter, however, is happily deemed insufficient for any German teacher. All teachers in the secondary schools are required to include psychology, philosophy, and theoretical pedagogy in the state examination. In addition, they must take a two-years' course of professional training. This can be begun only after passing the state examination.

IV. STANDARDS SUGGESTED FOR AMERICAN SCHOOLS

1. As minimum requirements it seems fair to ask that all teachers who enter high-school work should have had at least the equivalent of a college education. To accept less is to place the schools in charge of immature, unscholarly boys and girls and undeserving place-hunters. The high schools are the people's colleges and should ever remain centers of liberal culture. That they can never be when in charge of teachers who have never learned to love scholarship. I am of the firm belief that only in exceptional instances should teachers be permitted to teach in our high schools who have not actually studied in a standard higher institution. Those who preferred to acquire certificates thru examination only should be required to pass most searching examinations. What if an occasional deserving individual were thus debarred? In most states the right to practice medicine is withheld from all except those who have studied in a reputable medical college. No mere private study and cramming for the examinations will suffice. The right to enter the examination, as in Germany, is conditioned by previous study for a term of years in a reputable institution. The theory is—and perfectly sound—that no one can gain adequate knowledge of modern methods of medicine without coming directly in contact with properly equipped laboratories and skilled teachers. Thru private study of books the diligent might accomplish much, but the risks to society are too great to admit of trifling. Hence the necessity of measures which will protect society. Many states have similar protective legislation in the profession of law.

Are the needs not as great in teaching? The results of mistakes are not always so immediately apparent to the public in education as in medicine, but to the specialist in education they cannot be hidden. Why intrust the most precious possessions of the human race to the ruthless hands of ignorant beginners and confirmed quacks and charlatans? Every poor teacher helps to spoil scores of children every year, while the quack doctor of medicine occasionally harms an individual. The malpractice of the inexpert teacher is tenfold more harmful to society than that of the quack doctor. The teacher guilty of malpractice dwarfs, and distorts, poisons the mind and body of the

budding, developing child, while the quack doctor merely fails to cure bodily disease. The quack teacher sows the seeds of disease, the quack doctor simply fails to cure.

2. From the professional side the minimum requirements should be at least one full year of daily work in education subsequent to a half-year of work in psychology. It would be still better, and not excessive, to demand that one-sixth of the college course shou'd be given to educational and philosophical subjects. This should be so distributed as to give about one-half year daily to general psychology, a full year daily to the principles of education and child-study, and the remainder of the time to the history of education, methods, school systems, etc. If one-fourth of the 120 units of the college course could be professional, the following arrangement would be desirable: psychology, 6 semester hours; principles of education, 6; child-study, 2; methods, 4; history of education, 4; secondary education, 4; observation and practice, 4.

The Germans are wise in requiring actual residential study in a university as a prerequisite to teaching in the secondary schools. (Normal-school study is required of all who teach in the elementary schools.) It is practically impossible for one to gain modern ideas of scholarship without institutional training. Even if possible, other methods are too uncertain and expensive. Private study may give one certain book facts but nothing can be substituted for the laboratory methods of the modern institution. The teacher who is to teach classes by modern laboratory methods must first have been thru the laboratory work himself. The teacher who is to teach literary and historical subjects must know what libraries contain and how to utilize them. This can only be secured thru contact with them. It is preposterous to think that men may be intrusted to equip laboratories and libraries when they know nothing of them. Yet such things are permitted and encouraged by our inadequate protective legislation.

The Honorable J. Sterling Morton eloquently emphasized the importance of professional training for teachers when he said:

> We demand for Nebraska educated educators. We demand professionally trained teachers, men and women of irreproachable character and well-tested abilities. We demand from our legislature laws raising the standard of the profession and exalting the office of the teacher. As the doctor of medicine or the practitioner of law is only admitted within the pale of his calling upon the production of his parchment or certificate, so the applicant for the position of instructor in our primary and other schools should be required by law to first produce his diploma, his authority to teach, from the normal schools.
>
> We call no uneducated quack or charlatan to perform surgery upon the bodies of our children lest they may be deformed, crippled, or maimed physically all their lives. Let us take equal care that we intrust the development of the mental faculties to skilled instructors of magnanimous character, that the mentalities of our children may not be mutilated, deformed and crippled to halt and limp through all the centuries of their never-ending lives. The deformed body will die, and be forever put out of sight under the ground, but a mind made monstrous by bad teaching dies not, but stalks forever among the ages, an immortal mockery of the divine image.

XIII (*special*).

THE PROFESSIONAL PREPARATION OF SECONDARY TEACHERS IN THE FIFTEEN SOUTHERN STATES[1]

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This report attempts to sketch the conditions relating to the preparation of secondary teachers prevailing in the southern states of the United States. It is based upon information gathered by a circular letter of inquiry distributed in April, 1906. School officials, including state superintendents of education, presidents of state universities, principals of (state) normal schools, and superintendents of public schools in the larger and more representative cities stated such requirements as were in actual force and described such customs as were practiced in the matter of the preparation of teachers for high schools. The states of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia, and the city of Washington, D. C., were about equally represented among the replies sent in. Extensive information, furnished by the United States Commissioner of Education, based upon returns to his office two and more years ago, has also been used in the preparation of this report.

The interest in this inquiry concerning the requirements and customs pertaining to the preparation of secondary teachers centered around the four points mentioned in the letters of inquiry.

1. What scholastic preparation and what pedagogical training are *required* of high-school teachers in your state or city?

2. What courses of *academic* instruction, *especially* for high-school teachers, are given in your institution?

3. What courses of *pedagogical* instruction for high-school teachers are given in your institution?

4. Can high-school teachers in your state, city, or institution get *actual practice previous* to regular employment?

These four questions can well serve us as guides in telling the story of the preparation of high-school teachers in the South as practiced today. The exact statements in the replies are used as far as possible in the hope of making the report more historic than it would be if it presented only a general summary of present tendencies.

THE REQUIREMENT OF SCHOLARSHIP AND TRAINING

ALABAMA: In this, as in most other southern states, the high school is a non-legal institution. It is not named in the educational laws of the state. The first-grade teacher's certificate specifies by law, among other subjects, three high-school subjects: algebra,

[1] Legislative enactments relative to high schools made in some states during the interval between the preparation and the publication of this report render some of its statements purely historical. The immediate design of the work of the committee would be seriously modified if the attempt were made to incorporate these laws into this survey of existing conditions.

geometry, and physics. But any teacher holding the lowest (third) grade certificate may legally teach in any high school in the state. Such specific requirements as exist are determined by the city systems acting under their own educational charters. While Birmingham reserves the right to examine all applicants for high-school positions, it also has a general rule which requires applicants to be college graduates. In Mobile the teacher must be a graduate of a college or university "of good standing," or pass an examination on algebra, geometry, trigonometry, Latin, general history, Alabama history, English and American literature, rhetoric, physics, physiology, and pedagogy. In Montgomery the teacher to be eligible for appointment must hold a high-school certificate, which requires an examination in algebra, arithmetic, geometry, higher English, Latin, physiology, and theory and practice of teaching.

ARKANSAS: There is no legal specification as to what examinations secondary teachers shall be required to stand, either academic or pedagogic. The custom relative to these requirements may be exhibited by the practice of three cities. Hot Springs requires the teacher to "be a Bachelor of Arts or a Master of Arts from our best colleges or universities with successful teaching experience;" Little Rock mentions "college education—successful experience or normal-school training;" while in Pine Bluff the teacher "must be a graduate of a standard high school, normal school, college, or university, possess a knowledge of at least three standard works on pedagogy, and experience during one session as substitute worker."

FLORIDA: The law specifies requirements of *principals* of high schools in terms of the first-grade certificate. This is issued to teachers of some experience (at least two years) who pass examinations in geometry, trigonometry, botany, zoölogy, physics, rhetoric, literature, general history, Caesar and Vergil (two books each), and psychology. Only one city reports attempts on its part to get college graduates as its high-school teachers.

GEORGIA: There is no legal requirement beyond the customary certificate necessary for teachers in state-aided schools. Augusta requires that the teachers "should be graduates of a reputable college and a specialist in the department." Columbus requires "specialized university training for departmental work;" while Macon simply specifies a "diploma from a first-class college or university."

KENTUCKY: Kentucky has made no legal provision for, and neither supports nor controls high schools. The requirements in practice vary with the cities employing teachers. "Some accept state certificates, state diplomas, or degrees from colleges. Others hold special examinations." "An A.B. degree and three years' experience or a nine-months' course of pedagogical training is required. The degree must be from an accredited college, or recognized by the Regents' Board of Examiners of New York" (Covington). In recent years "a college degree is required of all high-school teachers in Louisville not in the manual department. No definite pedagogical training is required. Heads of departments must have had previous successful experience. Untrained assistants are frequently employed." Paducah requires only the "equivalent of a four-years' university course."

LOUISIANA: "There is no provision in the school law regarding the qualifications of high-school teachers as distinguished from other teachers; but high-school teachers are usually either college graduates, graduates of the state normal school, or holders of the first-grade teachers' certificates. The examination for this certificate covers a high-school course of study with some pedagogical subjects added." Another report on the prevailing custom says, "usually a normal-school graduate, often a college graduate is chosen." "They are required to be college graduates, or the equivalent, and to pursue professional study during the summer" (Baton Rouge). "Applicants for positions in our high schools are required to pass an academic examination, and to have had three years' teaching experience or a certificate from a normal training-school" (New Orleans). The high-school faculty of Shreveport is composed "of college and university graduates with years of practical experience."

MARYLAND: "Most of our high-school teachers are college graduates; the equivalent is pretty generally demanded. Not much pedagogical training is expected—rarely any." Baltimore states its requirements thus: "Fitness for appointment to teach in the high schools shall be determined by careful scrutiny of such diplomas or certificates of graduation as may be issued by colleges of good repute, or by an examination, oral or written, disclosing equivalent qualifications in the subject or subjects which the candidate proposes to teach. Proof of success in the actual work of teaching as well as the possession of the requisite knowledge will be considered."

MISSISSIPPI: Beyond the usual certificates, the state has no regulations. Columbus requires "a first-grade teacher's license on the state-required studies, and at least one year's experience." "Greenville requires that high-school teachers must have at least four years' training in a university or approved college."

MISSOURI: This is the only southern state in which the development of the high school has reached such a stage as to be made interesting by the acute opposition between the state department of education and the highest educational agency in the state for the training of teachers. The state on its part regards the public high school "as thoroly a part of the public-school system," but it makes "no specific provision by law for the training of high-school teachers." It "is unalterably opposed to creating an institution for the special purpose of preparing high-school teachers." High-school teachers must hold a first-grade county certificate, a state certificate, or a normal-school certificate—but this is not specified by law so as to distinguish them from elementary teachers.

"From now on high-school teachers who have charge of departments must be college graduates. No requirement has yet been formulated in regard to their pedagogical training. Practically we employ no one without experience" (Carthage). In Hannibal "a college, university, or normal-school training" is required. St. Joseph mentions a preparation of a "grade of a reputable college, with specialization on line taught," while St. Louis seeks "usually a suitable university degree and evidences of successful experience."

NORTH CAROLINA: Beyond the certificate issued by the county superintendent upon examination, no special preparation is required by law. Asheville has instituted "the high-school class" of teachers, which shall comprise "graduates of an approved university or normal college, with three or more years of successful experience in a city graded system of known efficiency," and teachers who "have taught seven years in the Asheville schools or its equivalent in a good city school system elsewhere and present evidences of systematic work and study under the direction of some person or institution of accredited worth." "All our high-school teachers are graduates of reputable colleges. We do not require pedagogical training, but encourage it in our selection of teachers" (Durham). Raleigh has no rule in this matter to guide in the selection of teachers; but "all are elected because of some particular qualifications for the work to be done."

SOUTH CAROLINA has been working on a legislative bill for the organization and aid of high schools. The provisions for the preparation of teachers proposed therein hardly belong to this report of present conditions. Columbia represents the situation thus: "No regular standard has been established, but we always get the very best teachers we can secure for the salary paid." Another city laconically notes the single fact that "greater care is exercised in selecting high-school teachers" than the teachers for lower grades.

TENNESSEE: The law regulating the certification of teachers in this state implies a recognition of the high school. Its certificates are classed as "secondary" and "primary." There are three kinds of the former: first-grade secondary (on diploma), first-grade secondary (on examination), and second-grade secondary (on examination). Graduation from the state Peabody Normal College meets the requirements for the first kind of certificate. Beyond this implication, the requirements for high-school teachers are left wholly in the hands of the local school boards. The usual custom in the cities, as described by one, "is to secure as far as possible graduates from the University of Tennessee or Peabody

Normal College." In the language of another the custom is that the teachers shall be "graduates of some reputable college."

TEXAS: The requirement is merely "the possession of a city or state teacher's certificate of a first grade or a permanent grade, sometimes of a college diploma." "There is no law in this state which specially prescribes the scholastic preparation or the pedagogical training of high-school teachers. Every city and town is a law unto itself in this matter."

"There is an unwritten law not to employ any teacher in the Austin high school who is not a college or university graduate." Dallas seeks "to secure thoroly educated, well-trained teachers of successful experience." Fort Worth "as far as possible gets graduates of colleges—these being better than the normal-school graduates." Without any requirement being in force, "most of the teachers of the Houston high school are graduates of the State University of Texas or of some institution of equal standing." San Antonio selects its teachers "from an eligible list who pass the high-school examination." Waco "rarely elects a high-school teacher who does not hold a diploma of a recognized college or university; some experience in teaching (in lower grades or in a high school elsewhere) is required."

VIRGINIA: The following legal requirement obtains: "Persons desiring to teach in the public high schools of Virginia shall be examined on such public high-school branches as they may be required to teach; provided, that graduates of colleges and universities of approved standing and reputation, shall be permitted, without further examination, to teach in such schools the branches in which they have been graduated." Pedagogical training other than theory and practice ("usually as found in some one single text on pedagogy") is not required.

Danville makes no requirements. Even in the absence of a rule, all teachers in Lynchburg are college graduates. Norfolk requires them to be "graduates of a satisfactory university or college on the subjects they are to teach."

WEST VIRGINIA. In the absence of a state law, the custom in the best high schools of requiring the Bachelor of Arts degree in a high-grade school has become "nearly universal." Among the others, normal-school graduates are chiefly in demand. The training requirement is badly overlooked by all of them. Usually experience has been had in the lower grades. A majority of the teachers in Charleston, Fairmont, Huntington, and Parkersburg are college graduates. "The recent practice in Wheeling has been to appoint only college graduates with experience in teaching."

WASHINGTON, D. C., specifies two requirements: "(1) College degree and passing an examination for high-school teachership; (2) Normal graduates with five years' experience as a teacher in a high school, except possibly as to graduates of local normal schools."

ACADEMIC INSTRUCTION PROVIDED ESPECIALLY FOR SECONDARY TEACHERS

The information gathered by the second question is very meager. There are but few institutions (probably three) in the South which attempt to prepare high-school teachers by devising courses of study particularly adapted to such preparation or by indicating something of the work which ought to be taken as a part of such preparation. Partly to indicate the existing attitude toward this factor, and partly to record existing conditions in the academic training of secondary teachers, detailed mention will be made of this information, even at the risk of greater monotony of record than in the preceding section of this report.

ALABAMA presents no academic instruction *especially* designed for high-school teachers. The usual high-school subjects are taught in high schools, normal schools, and some of the colleges, but not with a view to the preparation of the teachers of them in high schools. The standard conception seems to be that going over these subjects in the progress of one's

pursuit of the secondary curriculum is sufficient preparation for giving instruction in the same subjects. This remark applies to almost all other southern states with equal force.

ARKANSAS yielded no information, and even showed some misunderstanding of the point involved. One city reports: "Latin, modern languages. Our high school is the regular accredited high or secondary school." Another conducts "reviews once each month on English, mathematics, science, history."

FLORIDA: The University of Florida, lately reorganized, has under way an A.B. course in pedagogy. The academic work will, at the end of the sophomore year, qualify for the state certificate which requires examination in geometry, trigonometry, botany, zoölogy, physics, literature, general history, Caesar and Vergil (two books each), and psychology.

GEORGIA: Beyond the usual courses of study in all the higher grades of institutions, which are open to and taken by those who may become, and who may now be, high-school teachers, no courses of study are offered for such preparation. In one institution regular college *elective* courses are significantly regarded as especially designed for high-school teachers.

KENTUCKY: The State College offers two courses designed to prepare teachers for high-school work. One is a college course (four years) and leads to the degree of Bachelor of Pedagogy. "The entrance requirements to the freshman class are on a par with those of other colleges in the South." The other is the state-diploma course, and covers the work of the high school and about the first year in college. There is much psychology and theoretical pedagogy in each course. The completion of either course entitles the person to a life-certificate to teach in Kentucky.

LOUISIANA: Although a high-school course of study has been graded, outlined, and adopted by the State Department of Education, no institution has devised instruction especially designed for the academic preparation of secondary teachers. The new department of philosophy and education in the Louisiana State University introduces academic subjects of collegiate grade in its four-years' course leading to the Bachelor of Arts degree, but they are only the courses given to all other academic students.

MARYLAND: "The state normal schools offer no courses. Several colleges are state aided, and supply many secondary teachers; but they offer no course especially designed for secondary teachers."

MISSOURI: The State Department is opposed to such instruction. But the University of Missouri has notably developed a Teachers College originally intended to prepare high-school teachers. Recently it has added instruction designed to prepare elementary teachers as well. For the preparation of high-school teachers it provides (in addition to courses available in the department of liberal arts, the usual undergraduate courses) the following academic courses: agronomy (3 hrs.), manual training for high-school teachers (6 hrs.), advanced algebra (3 hrs.), trigonometry, and analytical geometry (3 hrs.), physiography of North America and Europe (3 hrs.), meteorology (3 hrs.), physical geography (3 hrs.), botany (two courses 6 hrs.), elocution (3 hrs.), English (two courses 6 hrs.), German (3 hrs.), Latin (Cicero and Vergil 3 hrs.), Greek (Anabasis 3 hrs.), Greek literature in English translation (3 hrs.), history of Greece (3 hrs.), history of Rome (3 hrs.), the evolution of cultivated plants (3 hrs.), general physics (3 hrs.), and experimental physics (3 hrs.). This plan of work is not committed to, but tends to prepare for, departmental teaching in the high school.

Cape Girardeau Normal School claims to be "a teachers' college and offers a full college course in the languages, mathematics, history, English, and the sciences, in addition to its professional courses." But none of this is specified as designed for the secondary teacher. Warrensburg State Normal School: "We grant our diploma to graduates of A.B. courses or of first-class four-year high schools without much requirement along academic lines."

NORTH CAROLINA, SOUTH CAROLINA, and TENNESSEE offer nothing beyond the courses provided for all students in universities, colleges, and normal schools.

TEXAS: The University of Texas has a school of education, but not a teachers' college

The idea that the future teacher in a high school needs special preparation prevails here to a certain extent, but not in a completely differentiated form. This is evidenced by the policy, waived in exceptional cases, of recommending persons for high-school positions in the state of Texas only when they have completed specified academic courses, and also by the practice of urging students preparing to be secondary teachers to take certain courses while receiving their academic training. Thus, before a person is recommended as a secondary teacher of Latin he must have taken in Latin three full college courses; in German, four and two-thirds full courses or their equivalent; in English, four full courses; in mathematics, three full courses; while in chemistry the student is urged to take nine full and partial courses.

VIRGINIA offers no courses especially for high-school teachers.

WEST VIRGINIA University "offers sixteen courses for high-school teachers and others" in its department of education.

PEDAGOGICAL INSTRUCTION PROVIDED FOR SECONDARY TEACHERS

ALABAMA: The University of Alabama provides junior and senior years' courses on genetic psychology, principles of education (presupposing psychology, logic, and ethics), and history of education, in which the problems of secondary education receive considerable attention, but the courses are not specifically designed for high-school teachers in preparation for their work. In common with like institutions in Georgia, North Carolina, Tennessee, and Virginia, it has a faculty member, maintained by the General Education Board, who devotes his efforts to establishing in the state a policy of public high schools. Some of the instruction given in these state universities mentioned below results from this movement of the General Education Board. The normal schools give the usual courses on psychology or psychology in education, history of education, theory and practice of teaching, school management and methods, but not for high-school teachers as such. Probably most of this instruction, as elsewhere, pertains to the lower grades of school work, when not treating of "education in general." The larger cities sometimes have means for pedagogical work on the part of high-school teachers *already in the service*. This usually consists of "monthly meetings of teachers where some author on pedagogical subjects or school management is studied." The superintendent or principal selects the works which are thus read and discussed.

ARKANSAS: Pine Bluff has bimonthly meetings of teachers for regular courses in psychological reading and instruction.

FLORIDA: At the University of Florida, students in pedagogy devote from one-fifth to one-fourth of their time on psychology, methods, school economy, and history of education.

GEORGIA: The University of Georgia provides courses for junior- and senior-year students on history of, science of, and principles of education and school management, including the general subject of secondary education. The latter considers "especially the relation of the high school to the common schools, the colleges, and the community at large, its course of study, organization, and methods in America and the leading European countries."

KENTUCKY: Nothing is offered in the state beyond "the usual professional" courses.

LOUISIANA State University by its new department of philosophy and education attempts, among other things, "to aid in increasing the scope and development of high schools, to qualify teachers for the higher grades of work in high schools and junior colleges, and to prepare teachers as supervisors, principals, and parish superintendents." The pedagogical courses are so arranged and balanced with required and elective academic courses as to occupy from one to four years, and lead to the Bachelor of Arts degree. In addition to the usual courses on education and cognate subjects, it has one course on methods (one year) "especially in secondary subjects" which also treats of the "aim, scope, and function of the high school."

MARYLAND: "None offered in the state."

MISSISSIPPI: A decade or more ago the University of Mississippi actively began a policy of fostering high schools in the state and extending their courses of study with a view to meeting college-entrance requirements. It has done little, however, on the pedagogical lines of interest in this inquiry.

MISSOURI: The Teachers College of the State University offers the most extended facilities along professional lines for high-school teachers to be found in the southern states. In addition to several courses designed for elementary teachers, the following are given especially for high-school teachers: educational psychology (half year, presupposing half year of experimental psychology), principles of education (half yr.), secondary education (half yr), practice teaching for high-school teachers (1 yr.), the teaching of German (2 hrs., half yr), teaching of Latin and Greek (half yr.), teaching of Greek and Roman history (1 hr., half yr.), the teaching of mathematics (2 hrs., half yr.), the teaching of physics (2 hrs., half yr.), the teaching of geography (2 hrs., half yr.) in part for high-school teachers, and the following which are open to such teachers but are not described as designed for any specific grade of teachers: teachers' conference on botany (2 hrs., half yr.), the teaching of English (2 hrs., half yr.), teachers' course on elocution (1 hr., half yr.), and the teaching of art.

Washington University offers five courses on pedagogy, but not specifically for secondary teachers. The City of Carthage requires "two promotional examinations," or one examination and one term in a summer school approved by the superintendent.

NORTH CAROLINA offers nothing.

SOUTH CAROLINA: The University of South Carolina offered a new course last year on the "Pedagogics of the high school, a two-hour half-year course, elective to junior and senior students, which comprised the work of seven co-instructors, treating of secondary education, and of English, Latin, history, mathematics, geography, and nature-study in the high school.

TENNESSEE: The University of Tennessee offers besides the usual pedagogical courses "a course in secondary education, including the psychology and pedagogy of adolescence, the history of secondary education, the comparative study of secondary schools in America and the principal culture nations of Europe, and some specific high-school problems in this section."

TEXAS: The University of Texas, in addition to the usual courses in general method, psychology, child-study, school management, history of education, and philosophy of education, designed to aid secondary teachers, principals, and superintendents of schools, offers the following "professional" courses: secondary education (3 hrs., one-third year), botanical method (3 hrs., one-third yr.), the teaching of elementary mathematics (3 hrs., one-third yr., partly for high-school teachers), the teaching of Latin (3 hrs., two-thirds yr.), and the teaching of manual training.

VIRGINIA: The University of Virginia offers a one-year's (3 hrs.) course in each of the following: secondary education, philosophy and psychology of education, principles of education, history of education, and school administration. These are not primarily designed for high-school teachers.

WEST VIRGINIA University offers nothing beyond what was mentioned in the second section of this report.

PRACTICE TEACHING IN THE HIGH SCHOOL PREVIOUS TO EMPLOYMENT

The existing condition is best described by the prevalence of the custom which either neglects this element in the preparation of the high-school teacher, or, if recognized and insisted upon, is relegated to some other institution or to some distant high school, if not frequently to training and experience in lower grades of schoolwork. This is probably the factor most foreign in the training

of secondary teachers. Even many training or normal schools recognize the fact that many of their students have had "experience" in school teaching before taking up their courses of study, and, consequently, lighten or lessen the amount of work done in practice teaching.

ALABAMA: The Troy Normal College Practice School does "some high-school work" in its last grade, and to this extent its graduates have practice before employment. Birmingham requires heads of departments to have had experience in teaching before appointment. In Mobile some teachers are promoted from the grades to the high school without having had high-school practice; some high-school teachers have had experience in high-school work *elsewhere*.

ARKANSAS: Cities in this state commonly have a "cadet class, the members of which practice in the schools as substitute workers."

GEORGIA: "Chiefly in common schools during course." Augusta depends "on other colleges for the training of our teachers." Macon requires "practice work two hours a day in our school. After they complete a normal course, we use them a year (probation) as supernumerary teachers, and afterwards employ in our public schools as regular teachers those whose work is satisfactory."

KENTUCKY: State College: "Some limited practice is given to students in regular courses, but it does not constitute any part of the required course." Louisville: No. "We usually employ some one who has had previous experience in some other school system." They found that employing college graduates (in the Girls' High School) without previous practice did not give good results.

LOUISIANA: "Not as yet," as one writer puts it.

MARYLAND: Only the practice "designed to prepare elementary teachers," as one return very frankly puts it.

MISSISSIPPI: The custom is not based on as good practices as in other states, this state not having any normal schools, even.

MISSOURI: Most Missouri high-school teachers are college graduates "who have thru summer schools and the regular terms of our state normals or Teachers College, received pedagogical training." "Missouri is unalterably opposed to creating an institution for the special purpose of preparing high-school teachers. Our best high-school teachers are not those who have been specially prepared for that work. They are our best educated people who grow into the ability to manage high schools thru having managed lower grade school work thoroly" (State Department of Education.).

In the high school connected with Teachers College of the State University, provision is made for definite practice teaching in high-school work in the training of the teachers. "Before certificates to teach in high schools are given, candidates must *prove* their ability to do work in those subjects for which they wish certificates. Three to nine hours' credit is required. This is done under the immediate supervision of the professor of theory and practice of teaching, assisted by others of the Teachers College faculty. . . . . The school is, in a sense, experimental, as inexperienced teachers are called upon to test theories and methods suggested to them."

Cape Girardeau State Normal School plans the introduction of high-school practice in its training of teachers a year hence. Outside these schools, the general plan in this state for securing practice in high-school teaching is by serving as "apprentice teachers in the schools of a large city."

NORTH CAROLINA: The plan begun last year at Durham is this: "We take a few prospective teachers and give them practice work in our high school. Such applicants must be college graduates. They join our training class and spend their time in the classrooms while the school is in session."

SOUTH CAROLINA: "No provision for such practice is known."

TENNESSEE: "Unfortunately there is not opportunity for students to get such practice."

TEXAS: The State University and normal schools have made no provision for practice teaching nor for adequate observation. "In some cities by means of a system of supernumerary teachers they can." Austin: "We do not employ teachers who have not had practice." Dallas: "We do not employ inexperienced teachers for high-school work."

VIRGINIA: "No." "In our grammar schools" only. "Practice at our normal schools."

WEST VIRGINIA: The Huntington Normal School admits students of the training department who expect to do high-school work to the classes of the regular academic department, which more than covers the high-school courses, and practice teaching under the superintendent of the training department.

SUPPLEMENTARY REPORT

At the request of the chairman of the committee, the following is offered in response to the two nquiries.

1. What professional preparation is *desirable* for southern secondary-school teachers? and,

2. What professional preparation is *possible* under existing conditions for southern secondary-school teachers?

The high school of the South possesses problems which are not marked by any geographical pecul arity. These problems are national and not local. If any peculiarity obtains it is due primarily to its historical descent from the old-time southern classical academy. This historic connection will, in large measure, explain the presence of the classical or literary flavor which obtains and also the custom of college graduates becoming secondary teachers. The industrial or technical high school in the South is the exception.

It is also a mistake to assume or maintain that the secondary school in the South materially differs from that in other sections of the United States. The factors of waste in the population and the economic conditions for developing native resources and sustaining human industries do not, aside from imiting the material resources of high schools, determine the question of the southern high school for the whites. It is chiefly the high school for the negro which has its questions determined by those conditions as related to the negro.

One fact which indicates that southern high schools cannot be regarded as *sui generis* is the employment in them of teachers prepared by northern institutions. The pursuit of studies in the latter by native southern teachers points in the same direction. The demand for professional secondary training is therefore the same in the South as in the North; or, to be more accurate, is growing to be the same. The above report on existing conditions indicates the widespread recognition of this demand.

There are a few features in secondary training made desirable, if not necessary, by reason of their intimate relation to successful secondary teaching. The best high schools of the day are, and all high schools of the future will be, departmental. This is required for efficiency, and indicates the degree of scholarship needful for high-school work. But secondary teaching tends to become too exclusively departmental so as to prevent the teachers getting a

sufficient knowledge of the pupil as an individual who has passed up thru definite school processes. High-school teachers forget the childhood of the pupil which has been passed in the grades. No less do they lack a sense of the unity in the work of the high school as a whole. Correlation of all the secondary-school factors is necessary, and this can be made real only thru adequate professional training.

Under existing conditions there are three means, suggested by actual experience in the administration of high schools, available for equipping teachers more effectively for the high school:

1. City systems could require that college graduates aspiring to high-school positions should become elementary teachers, for a time at least. This would make the schools responsible for "professionalizing" their own teachers.

2. Normal schools could add to the work they are already doing a department designed to prepare secondary teachers. This is possible in all the states, except Arkansas and Mississippi, where state normal schools do not exist.

3. Colleges and universities could add a year's course of study, which, presupposing the Bachelor's degree, would provide special preparation for the secondary teacher. This work would be an intensive study of what I call the pedagogy of the high school. This would include the history of the high school (particularly in the United States), the psychology of adolescence, methods of recitation in the high school, review of elementary-school processes, review of secondary subjects for specialization in the light of the foregoing and in the interest of effective correlation of departments and subjects, and the ethics of adolescence as related to the development of the institutional tendencies peculiar to the high-school student and American life in general. This work would not treat the high school as an isolated part of the public-school system. This work could also presuppose much of the work now done in education as a part of the provisions for the Bachelor's degree. This postgraduate work could then lead to the Master's degree in education, and thus become somewhat of a professional degree for teaching, corresponding to similar degrees in engineering, law, etc. This is possible in view of the fact that numerous leading high schools have already established for themselves the custom of giving preference to applicants who possess the Master's degree, even on the basis of the usual academic work.

4. Practice teaching in a *model* high school is probably not demanded as a part of this professional training. Where possible, visitation, observation, and, perhaps, some teaching in the school where one is to be employed, could better replace the model practice. At least the widespread custom of probationing new secondary teachers strongly indicates the necessity of each school fashioning its own teachers finally in accordance with its own best spirit and traditions.

Into the question of professional requirements after the secondary teacher gets into service it is not meet for these suggestions to enter. Most of the foregoing suggested requirements are now practically recognized in many

localities, and it is possible under existing conditions to standardize them thruout the South and the nation at large.

XIV (*special*)

CAPACITY AND LIMITATIONS OF THE NORMAL SCHOOL IN THE PROFESSIONAL PREPARATION OF HIGH-SCHOOL TEACHERS

JOHN W. COOK, PRESIDENT NORTHERN ILLINOIS STATE NORMAL SCHOOL

The battle for the professional preparation of teachers for the elementary schools is substantially won. The educational people are of one mind with regard to it and the general public approves the action of its representatives in making appropriations from the state treasuries for the establishment and maintenance of normal schools. While these institutions are not limited, ordinarily, by their charters to the preparation of elementary teachers, at least not in this country, the extreme demand for teachers of that class has furnished such a practical limitation in the great majority of cases. Here and there, however, a normal school has been influenced by college traditions and has developed so strongly on the academic side that many of its graduates have become teachers in secondary schools.

The marked advantages that have come to the elementary schools thru the professional training of their teachers has awakened a warm interest along similar lines among the high-school people. This is the most logical of consequences, and the practical question that is now up for discussion with them is with respect to the instrumentalities that should be employed in the technical preparation of teachers for their schools. Certain of the normal-school principals believe that their institutions are admirably equipped for such service and submit a statement of what they have been doing in that direction for some time in proof of the wisdom of their contention. Others hold that the needs of the two classes of teachers are so divergent that it is unwise for the normal schools to attempt to cover both fields. In attempting to discuss this question I have the possible disadvantage of being connected with a school which has no particular ambition in the way of preparing secondary teachers. In our study of the question it will be well to set the demands of the two classes of school as near each other as possible and thus to determine by such a juxtaposition the degree of variation and its bearing upon the problem.

I. GENERAL SCHOLARSHIP

Instruction is one of the necessary functions of the teacher. It may be defined as the canceling of the inequality in knowledge that exists between the teacher and the pupil. The inequality, therefore, is presupposed. Nothing more certainly and more quickly undermines the respect which the pupil should feel for his teacher than the suspicion that he is not a respectable authority in the subjects in which he attempts instruction. As Rosenkranz aptly remarks: "His authority over his pupil consists only in his knowledge and

ability. If he has not these, no external support, no trick of false appearances which he may put on, will serve to create it for him." He richly merits the contempt which his presumption and dishonesty will inevitably provoke. A wide gap in knowledge between the teacher and the pupil is demanded, not alone in the interests of accurate and inspiring instruction, but, as well, by all of the ethical relations of the school.

The immediate demands for knowledge in the two classes of schools under discussion are widely variant. The curriculum of the elementary school is, of necessity, narrow and superficial when compared with that of the high school. The first four years are mainly confined to the acquisition of a fair degree of mastery over the tools of culture. In the last half of the course there is an ascent into the elements of the knowledges, but, usually, the grammar school leaves off where the high school begins.

It goes without saying that, other things being equal, the broader and more thoro the scholarship the better the teacher, regardless of the grade in which he is employed. The imagination fondly dwells upon what would be possible if in every school there were a liberally educated teacher. That is an inspiring ideal to nourish as we press on to better things, but its realization is entirely out of the question at present and will be for an indefinite time to come. Where the highest welfare of human beings is concerned it is a rude shock to our fine idealism to have such material considerations as a mere lack of pecuniary resources determine matters of such supreme and far-reaching moment. They will push themselves into prominence, however, and will determine in large measure the course of events, whether agreeable to our ideas or otherwise.

With regard to the matter of general scholarship it may be said that graduation from a high school having a good four-year course implies an academic preparation which answers the needs of the elementary school very well. It furnishes, also, a good basis for the normal school to build upon in the professional training of teachers for that grade. If such a condition were the rule there would be a radical improvement in the educational status of the Middle West. The superintendent of public instruction of the State of Illinois, in his latest report, 1903–04, furnishes the interesting information that there were teaching in 1904, in seventy-two counties of the state, 4,428 persons whose training had been acquired wholly in the elementary schools. Such conditions seem deplorable enough, yet their case would be paralleled by teachers in secondary schools who have had only high-school training.

If the contention for a good high-school course as an academic preparation for the elementary teacher be justified, a college or university course, or its equivalent, would seem to be demanded by the same logic as a foundation for the high-school teacher. This is not unreasonable and is rapidly becoming the rule. Because of the relatively small number of high schools the scholarship problem for their teachers is not a very grave one; at least it is far less difficult than the corresponding problem for the elementary schools. Indeed,

the reasonableness of this higher discipline demand is so apparent that an argument in its defen e seems quite unnecessary. The work of the pupil should be seen in sufficient perspective to bring out its meaning or it is likely to fall into a hopeless formalism. There are certain phases of school work that are purely mechanical and that may be conducted after a fashion by any of the pupils of a given class. The Jesuit schools employed the idea advantageously as they were conditioned, but Bell and Lancaster worked it to death. Such crude attempts at educating children had some defense a century ago but they should long since have become obsolete. Unhappily they are still present, and very much in evidence, too, as is proved by the statements quoted. It ought not to be difficult to save the secondary schools a similar fate. Happily the studies are of such a character as to make it comparatively easy to detect the incompetents in scholarship, for they are quite sure to meet with early disaster in their attempts to teach what they do not know.

II. SPECIAL SCHOLARSHIP

The advantages arising from an intensive study of subjects, in the interests of departmental instruction, are so apparent that many of the elementary schools have adopted that method of teaching. In consequence, children of ten or twelve, or even of tenderer years, march from room to room like young collegians, to receive the instruction of teachers who are specializing, whether they are specialists or not. They are thus anticipating the experiences of the high school and college. It is quite possible that our sympathies for the orphaned neophytes may be misplaced, but there can be no doubt of the wisdom of applying the method in the high school. I am not disposed to object to its application in the upper grades to a limited extent, but the amount of specializing in the elementary schools will not be great for some time to come. We have come to expect the teachers of manual training, of music, of domestic economy, and possibly of drawing, to be specialists. For the ordinary branches, however, one teacher of real ability has many advantages over a group of specializers. The children need continuity of control and a warm and intimate relation to one person. There may be something in the remark of a little girl who had been a pupil in a normal training-school and was transferred to a city school under a single teacher. She was "tired to death by seeing the same teacher in the same dress all day long." But she must be classed among the exceptions. The subjects of instruction are within the reach of fair scholarship. The lessons are neither long nor difficult. Where specialization is demanded it is of a simple sort and yet ample in its extent and thoroness for all of the needs of the elementary school.

With the secondary school the case is quite different. It has become in reality what it has sometimes been called, the people's college. With its modern equipment of library and laboratories and shop and kitchen and sewing-rooms and business department and all of the rest, and with its extended course of literary work beside, it has outrun the old-fashioned college of fifty

years ago in many directions. While the transition from the eighth grade is a trifle abrupt, perhaps, and the freshman year may be a little bewildering, the pupil is well established by the beginning of the second year and is soon doing a kind of work that a teacher cannot handle satisfactorily without more than the ordinary general training that the college does. Ancient and modern languages, mathematics, literature, science, and others of the high-school subjects call for teachers who have done a good degree of special intensive work. This is also the view of most of the high-school people who are conducting really superior schools either as preparatory to the university or as a training for life.

I know that the young doctors of philosophy quite often make a sorry mess of their teaching, carrying the methods of the university into the high school; but that is because of their lack of training in teaching, a discipline which many of them regard with lofty disdain. Their scholarship is an extremely desirable qualification and when they have learned to use it advantageously they will be a great blessing to their pupils. The high-school boys and girls need the vitalizing contact with genuine scholars and they will never be more susceptible to their influence than when in the high school and within the hero-worship epoch.

III. NORMAL SCHOOLS

Can the normal schools meet the demands of general and special scholarship which have been suggested as essential to the best success of high-school teachers?

That depends upon the character of the normal schools. Indeed, there is no normal school, but there are normal schools. In no other group of educational institutions will there be found such infinite variety. Included under the term will be found schools that are as widely separated as the Superior Normal School of Paris and some of the small private "normals" that maintain a precarious existence from the fees paid them by ambitious boys and girls who want to get enough of the "common branches" to enable them to get a second-grade certificate to teach a country school. The former is in a class by itself. Perhaps the same is true of the latter. Its faculty has enrolled many of the most notable French scholars of modern times. Names like Pasteur's adorn its cata ogues. No American normal school has approached it in the extent of its academic curriculum. As to the ability of such an institution to furnish general and special scholarship for teachers of high schools or of colleges there can be no doubt.

A fair number of our western normal schools, anxious to compete with the colleges or even with the universities, in the extent of their courses of study offer a training in scholarship that ought to qualify their graduates, in that respect, for instruction in secondary schools. I quote from President Seerley, in the *Fourth Year Book* of the Society for the Scientific Study of Education, Part I, who discusses the "Relative Advantages of Universities and Normal Schools in Preparing Secondary Teachers." He says:

The record of the Iowa Normal School is cited, not because its scheme of work is ideal nor its plans perfected, but because its organization permits the training of all classes and all kinds of public-school teachers. This condition has existed for only a few years and yet its graduates have taken an active part in the work of secondary education. It is true that they are among the more successful teachers, and that their influence upon the spirit and tendencies of education is unequaled by any equivalent number of teachers who have received their training in other kinds of educational institutions.

He then proceeds to show that there are nineteen high-school principals, twenty-three city superintendents, fifty-eight department teachers, ninety-one village principals, and fifty assistant principals who have received all of their preparation in that institution. Here are 241 persons, a sufficient number to generalize with regard to that particular school, "whose influence upon the spirit and tendencies of education is unequaled by any equivalent number of teachers who have received their training in other kinds of an educational institution."

It would be interesting to know just what preparation these pupils had when they entered the Iowa State Normal School, how long they remained there, and what courses they pursued, to what degree they specialized in the branches which they are teaching. Possibly President Jones, of Ypsilanti, and President Kirk, of Kirksville, may have similar statements to offer, for their schools give advanced instruction in high-school subjects. I may add in support of the general proposition implied in President Seerley's statement, that some of the best high-school teachers of my acquaintance and some of the best city superintendents in this country received all of their school training above the elementary grade in the Illinois State Normal University, at Normal. The former have been teaching in the same schools for many years and have developed their work by their private study, while the latter owe rather more to their experience, I suspect, than to the school.

This widening of the academic instruction of the normal school is by no means a modern innovation. It is rather the original conception of the ideal method of training teachers. Such a system was in operation in New York when the first American normal school was established, at Lexington. The discussion between the advocates of the two systems—an independent normal school, on one hand, and a normal department as an attachment to an academy, on the other—was protracted and intense. It is an instructive chapter in the history of American normal schools. It was finally decided, in Massachusetts, to adopt the former plan and normal schools generally, in this country, have followed the Lexington leadership, not excepting the New York schools. Where there has been but one normal school in a state there seems to have been a stronger disposition to accent the academic aspects than where there are more.

What objection can there be to such an organization of the normal school? That fine things have been done by schools having such an organization must be admitted in the presence of testimony that is so convincing. It is assumed in this discussion that the primary purpose of such an institution is the pro-

fessional preparation of teachers, as the primary purpose of a law school is not general culture but the professional preparation of lawyers. I suspect that this proposition will be admitted by all normal-school faculties. The divergence will come when the method of preparation is up for discussion. If this is a correct view of the function of the normal school the constant and insistent preoccupation of everyone connected with the management of the institution will not be general or special scholarship of an academic sort, but will be special scholarship relating to the teaching art. Anything, then, that tends to minimize the main interest of the school, or what should be its main interest, must be regarded as hostile to the fundamental purpose of the institution.

Where there is a strong accentuation of the academic idea and a rich development of it at the expense of the professional idea it ought not to call itself a normal school, but an academy or college with a pedagogical annex. I do not forget that I shall be accused of thinking more of an equipment of method than of an equipment of subject-matter to which to apply it. Such an accusation would be unjust. I have no faith in pure form; indeed, such a conception is beyond my capacity. I assume as thorogoing scholarship upon which to found the pedagogical instruction as any advocate of the "academic" normal school. I plead for the time which ought to have been spent in other schools of a different character and that should be presupposed, in order that it may be spent in a sincere and rigorous study of the science and art of education.

The simple truth is that it is far easier to run along the old lines, long since marked out by the colleges, than it is to develop a satisfactory course for teachers. Because such courses are yet in the formative state and require the most persistent effort and the most laborious investigation, if they are to be of real worth, there is no little scepticism, even in some of the normal schools, as to their making much of a demand upon the intelligence of the students. I quote from one of the most eminent of the advocates of the academic scholarship idea, a man whose success is the strongest argument for his view: "If the students getting ready for a teacher's career get nothing from a normal school except professional instruction and technical training, it is quite certain that a majority of them would mentally perish from the monotony of the effort, and would find it necessary to decline to continue such unpalatable work." This seems a strange utterance for a normal-school president and implies that, in his opinion, pedagogy has not developed enough in the way of a fruitful content to become the predominating subject of instruction in a technical school.

It seems to me to be more than probable that the strictly professional aspects of training will be neglected in an institution that engages largely in the pursuit of the knowledges for their own sake. The great majority of the teachers in such schools will devote themselves to their mathematics and literature and science and the rest and, in consequence, the pedagogy will

get scant attention. On the other hand, if the school is really absorbed in what would seem to be the characteristic function of a genuine normal school there would not be space nor inclination to furnish the general and special scholarship in the knowledges that must be presupposed in any good scheme of professional instruction. My conclusion, therefore, is that the normal school is not well adapted to the work of the college, and to the extent that it attempts it there will be a falling-off in the quality of the work along professional lines which it was especially organized to do if it was sincere in the selection of its name. There will not be that unity of sentiment, that enthusiastic devotion to the study of childhood, that open-mindedness with regard to the course of study, that willingness and desire to submit the methods of the classroom to the test of the most rigorous criticism in the light that has been thrown upon teaching by the sciences that relate to the correlated life of body and mind, that ought to be found in a teacher's seminary.

IV. TRAINING FOR SECONDARY VS. ELEMENTARY TEACHERS

Can the normal schools having the ordinary organization give satisfactory professional training to secondary as well as to elementary teachers?

It is quite generally conceded, at last, that the normal schools are doing a fair piece of work in the preparation of elementary teachers. If it is really possible for them to do as well for secondary teachers the agencies are at hand for the solution of a problem that is pressing with growing urgency upon the minds of the educational people whose chief interests lie in the secondary schools.

That the training that elementary teachers now receive would be of great value to secondary teachers I do not for a moment doubt. The high school presupposes the elementary school, hence it presupposes the first twelve or fifteen years of the life of the child. To have a fairly accurate conception of what has been going on in these wonderful years is to have a most admirable preparation for the high-school period. Many of the colleges and universities have been so favorably impressed with the work of the state normal schools that they are willing to admit to their junior classes such of the graduates of their two-year courses as were ready for the university when they entered the normal school. With suitable work in the higher institutions, in the way of liberalizing their scholarship, such persons become admirable teachers for secondary schools. Their professional training identifies them very thoroly with the teaching idea. Their disciplines in the university redeem them from the narrowness of a limited grasp of the higher development of the knowledges, and stimulate them in a most interesting way along the lines of superior scholarship. No students are more enthusiastic and few are so ambitious for professional scholarship with all that it implies in the way of general and special scholarship in the knowledges. Of course they have much to learn about the high-school boy and girl and of the educational values of the secondary curriculum. But they are extremely desirable, as a general proposi-

tion. Large numbers of them are extending their courses of study in this way and are doing fine things, in consequence, for the high schools. Their university work is done with the thought of teaching running thru it all, and they thus have the advantage of assimilating and estimating notions. Their training and experience along professional lines give them the apperceiving conceptions by which they can make the most of their new disciplines. Where they are willing to do more postgraduate work in the teachers' colleges they become quite ideal and indicate to us what is really meant by a professional teacher.

That the normal schools must prepare elementary teachers is, I think, universally conceded. If they should not do this they ought to surrender their charters and reorganize as teachers' colleges. Now the thing of all things that is fundamentally necessary to the grade teacher is the warmest sympathy with child life and the clearest understanding of the best methods of its motivation. She must make up her mind to live with childhood. She must shorten her step to its slow intellectual pace. She must content herself in her school work with the simplicities of elementary knowledge, so far as her teaching is concerned. She cannot hope to have her recitations filled with the intellectual delights that come to the teachers in the secondary and superior schools. The demands made upon her are peculiarly exhausting, since alertness, vivacity, constant watchfulness, genuine mothering, are the price of any success with young children. Real comradeship with them, in any reciprocal sense, is hardly possible. Because of these trying conditions the normal school must be suffused, surcharged, saturated, with interest in the young child. In a very true sense he is clay in the hands of the potter. An unsuitable position for a considerable portion of each day may mean curvature of the spine, with all of its attendant penalties. A neglect to attend properly to the quantity and disposition of light may result in defective vision, with all of its embarrassing handicaps. Windows carelessly left open may entail catarrhal troubles with all of their evil and offensive consequences. Improper desks mean possible round shoulders. Everywhere there is physical plasticity, but a vanishing plasticity, leaving behind it symmetry, if the teacher is wise and watchful, or deformity, if she has been neither.

In the mental life there is the same impressibility. It is a time of beginnings and relative helplessness. Nothing is easier than a maladjustment of tasks against which the child is too ignorant to file a conscious protest. Few things are more difficult than a generous understanding of the opening life, a discovery of the employments most suitable to its successive stages, and a proper adaptation of the latter to the former.

When the high-school stage arrives a radical change in the development of the pupil is at hand. New ambitions are awakened. The old routine, for which the growing child has a very hospitable place in certain periods of his unfolding, has become inexpressibly irksome. Individual initiative succeeds imitation or obedience. The social instincts are quickened. Sentimental

attachments suddenly blossom out with exaggerated efflorescence. In brief, the multitudinous phenomena of adolescence, with all of their iridescent changes, appear and childhood is a thing of the past.

How can a school whose main prepossessions are in the directions of childhood meet in the most satisfactory way the demands of a school whose most absorbing interests should be in the unstable, emotional, transforming epoch of the adolescent? How can it furnish the atmosphere and the requisite guidance for two such dissimilar stages of growth when each seems to demand, in the interests of the best results, the exclusion of the other? Let us remember that we are seeking not fairly good conditions, but the best conditions. This is one of the aspects of the secondary teacher's preparation that the normal school seems not well fitted to give.

But the intellectual attitude changes quite as radically as the emotional. The teaching, or instruction, must be greatly modified in its method. It is true that in the higher grades it approaches that of the high school, but in the lower grades it is quite radically different. Imagine the primary teacher employing the Socratic irony! Yet in the high school it has a legitimate place altho not a prominent one. The young child has slight critical capacity upon which the teacher can bank. His drawings of the human form lack necks and attach the arms to the side of the head, yet they do not offend his notions of accuracy. The high-school pupil needs the challenge, the cornering, the defeat, perhaps, as well as the sympathetic attitude of praise and agreement. He has found footings which give him confidence to hold his own against the contention of a teacher, perhaps. Scholarship is a possible passion and the subjects of instruction more and more absorb his mind. The studies are new and demand a new emphasis. The younger child is chiefly occupied with the individualism of the world, but the high-school pupil seeks more and more to find the unity as well of the phenomena of the world. To state it a little differently, the high-school age is the stage in which the pupil is entering upon the epoch of conscious reflection; he is beginning the more explicit identification of himself with the genius of the modern world, which is essentially scientific. These epochs of growth are so generally recognized that I need not follow this line of thought further than to say that the method of observation and illustration must now give way in a growing degree to the method of demonstration in which the necessity of the relations is made apparent.

It may be answered that the normal school is capable of adjusting itself to these varying conditions by organizing separate departments which shall not overlap each other. But this is only another way of saying that the two classes of schools may exist side by side under the same general management. That is true enough, but that will make a sort of university of the normal school and there will be necessitated an elaborate and distinct equipment for each. As there must be a training-school for the elementary teachers so there must be, for the highest success, a parallel opportunity for the secondary

teachers. I do not advocate an exact parallel, but an application of the same general principle.

I must content myself with one additional suggestion. It is quite possible for the normal school to present the general features of a pedagogical philosophy. It must be very general, however, to be comprehended by all. It may be carried to higher and higher planes as the ability of the pupil renders it possible, and such a development of the subject is extremely valuable in toning up the general character of the institution. But each subject of the curriculum needs a method treatment which unfolds its inherent logic and its adaptation to the needs of the developing pupil. For illustration, arithmetic must be studied from a new point of view. The normal student had his last contact with it in the grades of the grammar school while on his way to the high school. He was then too young to be conscious of his own generalizations or to rise to any just conception of the unifying ideas that make it a science. The subject must be re-examined from the standpoint of its logical organization so that the student can look down upon it as it emerges in all of its seeming complexity from a few very simple principles. This is what is meant by the normal-school people when they declare that their work upon the subjects of the course of study is not academic but professional.

What has been said with respect to arithmetic is to be considered as said with regard to the other subjects of the elementary school. But the subjects of the secondary school need a similar treatment and such a suggestion implies an academic preparation that a college course will barely cover. If we are to have really superior teachers for the secondary schools we must not be satisfied with anything short of what Germany is doing for her schools of that grade. It is absurd to expect our existing normal schools to accomplish any such results. Meanwhile, these institutions are the only existing agencies, except the teachers' colleges and pedagogical departments of the universities, that can afford any great relief at present. The latter are so few in number that they can accommodate very few relatively. The former are fewer still but they are having a profound influence. Until the present ferment shall have aroused the public mind to the necessity of making the secondary schools as attractive pecuniarily as the colleges—and why should they not be?—men and women of superior ability and preparation will not select them for life-work except in occasional instances where principalships pay a living wage. A few miles from where I am now writing is a township high school. Its principal is a graduate of the Illinois State Normal University and of an excellent Ohio college. He is a professional teacher in all that the name implies, and the community regards him as a good bargain at something like thirty-five hundred dollars a year. He took his professional course before his college course, but he served a long apprenticeship as an assistant before he rose to the dignity of principal. He is a good illustration of what I have had before my mind as I have written of the secondary teacher and of his preparation, altho there should be an educational institution which could do for him in two or

three years what he did for himself in several times two or three years while he held a subordinate position.

I have made an incidental reference to the practice school as a feature of the institution that will prepare secondary teachers. Doubtless the work of the normal student in actual teaching under normal conditions, altho done in the elementary grades, will be of material help in high schools. There should be an opportunity to study a model high school and also to do actual teaching work as a part of the preparation of the secondary teachers, however. The problem is far more difficult than in the elementary school because of the greater maturity of the pupils and of their more fully developed consciousness of the work of their teachers. It can be done and well done if deferred until the scholarship and maturity of the teacher are of such a quality as to win the confidence of the pupils. What is at first lacking in skill can be compensated for by a fine culture and attractive personal qualities. Persons of such attainments understand the meaning of criticism and accomplish in a few weeks under such conditions what would otherwise cost months or even years of experience, if they were ever able to achieve it at all.

I have not dared to discuss those other very desirable qualities of the secondary teacher which are matters of individual personality rather than the result of professional training.

My conclusion as the result of my experience and study is that the normal school as generally organized at present is not the best possible agency for the preparation of secondary teachers.

XV (*special*)

PROFESSIONAL TRAINING OF TEACHERS FOR THE SECONDARY SCHOOLS OF GERMANY

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CONDITIONS OF ADMISSION TO EXAMINATIONS

The so-called secondary schools of Germany cover a period of nine years in the educational life of the student; roughly from nine or ten to eighteen or nineteen years of age. The first three years of this course may be said to belong to elementary, the next four years to secondary, and the last two years to higher education. To be trained for such a school, the candidate needs the professional preparation of the elementary, the high-school, and the college teacher. To meet such conditions the Germans divide their certificates in the various subjects into first and second and third grades, the scope of which will be explained later.

It takes some sixty closely-printed pages to describe all the requirements for the granting of these certificates in Prussia alone. Many of them relate to social, economic, and educational conditions which find no counterpart among us. For this reason, the statement of what is required in the German

professional preparation of teachers for this class of schools may be greatly abridged.

One of the fixed ideas in Germany is that the candidate for teaching in the higher schools must first be brought to the stage of productive scholarship. Two antecedent conditions are therefore prescribed for eligibility for the later professional examinations. They are as follows:

1. Graduation from the full course of a *Gymnasium*, a *Realgymnasium* or an *Oberrealschule*, each of which is nine years long, and admits to the university.

2. Evidence that the subjects in which the candidate wishes to qualify have been studied in an orderly manner for at least three years in a university.

When these and a few other minor conditions are satisfactorily met the candidate is admitted to the examinations for certification.

THE EXAMINATION COMMISSIONS

These commissions are composed mostly of university professors, together with a few secondary school men, all of whom are named by the minister of education and serve for one year. In general, there is a commission in each university town, there being ten of these bodies in Prussia. The candidate is required to present himself before either the commission located where he spent his last semester of university residence, he having already completed one other term there, or the commission in the district where he proposes to teach. Provision is made to prevent too many candidates from being admitted in any one district by transferring their applications to other commissions, and also for the reception of candidates coming from other German states or foreign countries.

SCOPE AND CHARACTER OF THE EXAMINATIONS

The examination consists of two parts, one general and one special.

The general subjects are philosophy, pedagogy, and German literature; also for those who expect to teach religion, the doctrines of the Evangelical or of the Catholic church.

The special examination is upon the subjects the candidate expects to teach, which are to be divided into majors and minors, examination in at least four being required.

The subjects chosen must be taken in the following combinations:

Latin and Greek; French and English; history and geography; religion and Hebrew; pure mathematics and physics; chemistry with mineralogy and physics; or, instead of physics, botany and zoölogy, with the understanding that German may take the place of either of the subjects in the first three groups or of Hebrew in the fourth. Applied mathematics is also a subject for examination, to be preceded, however, by pure mathematics.

The minimum requisite for any kind of a certificate is that the candidate shall be satisfactory in the general examination, and shall obtain first rank in at least one subject and second rank in at least two of the others.

First rank in any subject entitles the holder to teach it thruout the nine grades of the school. The holder of a certificate of second rank in any subject is entitled to teach that subject only thru the first six grades, that is, up to and including *unter secunda*.

It is in general expected that the candidate will select at least two majors and two minors. He may, however, select more of either or both, supplementary examinations being subsequently allowed in order to enable him to extend the range of subjects he is certificated to teach. Dean Russell states that few teachers ever secure first rank for more than three subjects.

Both the general and the special examinations are partly written and partly oral. The written work, however, is quite unlike the sort we are accustomed to in this country, for it is prepared at home in the form of essays with full liberty to use books to any extent desired. Only personal assistance is forbidden.

One essay is upon some theme in philosophy or education; other essays are upon themes selected from the candidate's major subjects. Six weeks are allowed for each essay, with a possible extension of the time to six weeks more. In this written work the design is to test the sufficiency of the applicant's knowledge, the adequacy of his judgment, and to show whether or not he is capable of a logically arranged, clearly and adequately expressed exposition of the subject in hand.

In the oral examination upon the general subjects, the following points are to be established:

1. In religion, whether or not the candidate shows himself well acquainted with the content and connection of Holy Writ, has a general knowledge of the history of the Christian church, and knows the chief doctrines of its confession.

2. Whether or not in philosophy he is acquainted with the important facts of its history, with the important doctrines of logic and psychology; and also whether he has read one of the more important philosophical masterpieces with comprehension, such as Locke's *Essay Concerning Human Understanding*, Berkeley's *Principles of Human Knowledge*, Kant's *Critique of Pure Reason*, or Schopenhauer's *Die Welt als Wille und Vorstellung*.

3. In pedagogy, whether or not he has grasped its philosophical basis, knows the important stages of its historical development since the sixteenth century, and possesses some understanding of the problems of his future calling.

4. In German literature, the examination is to show whether or not he is acquainted with its general development, especially since the beginning of its springtime in the eighteenth century, and that since leaving school he has read with understanding its more important works.

Needless to say, the oral examinations in the subject-matter to be taught are the most searching and thorogoing of all. The candidate need not expect that the examiners will not sound all the depths and shallows of his knowledge.

An idea of the range of the examination may be gained by the prescriptions for those who would teach English.

As a preliminary the candidate must show that he has a good elementary knowledge of Latin and can correctly translate the easier writers, like Caesar, at sight. Then come the regular requirements, as follows:

1. For the second grade: Knowledge of the elements of phonetics, correct and ready pronunciation; acquaintance with the etymology and syntax of the grammar; possession of a sufficient vocabulary of words and phrases and considerable practice in the use of the speech; outline of the course of development of English literature since Shakspere and reading knowledge of the important poetic and prose writings of recent times; capacity for facile translation of well-known authors into German, and the power to compose in English without gross errors.

2. For the first grade: Oral and written use of the language, not only with the grammatical accuracy arising from scientific grounding in the grammar, but also with more extensive acquaintance with the vocabulary and idioms, as well as a capacity to use them with a facility adequate to the demands of instruction; general knowledge of the historical development of the language from the old English period; knowledge of the development of the literature united with a thoro reading of a number of eminent writings from the earlier periods to the present; insight into the laws of English versification, both in early and in late periods; acquaintance with the history of England, as well as with the proper exposition of texts in use in schools.

It is remarked that an especially excellent knowledge of modern English literature or an unusual mastery of the tongue as now used, may be accepted in lieu of corresponding deficiencies in any of the foregoing requirements.

Should a successful candidate receive third grade in any subject, he is permitted to teach this subject only in the first three grades of the school, i. e., in the elementary classes.

The final certificate covering the various subjects is ranked according to the number of first-, second-, or third-grade ratings received. A first-rank certificate means that the holder has received upon examination either two majors of first grade and two minors of second grade, or two majors and one minor of first grade, and it entitles him to future appointment to the position of head teacher, with the title of professor.

A second-rank certificate means that the holder has not reached the minimum above described, and that he will be restricted to the position of ordinary teacher (*Oberlehrer*). (See Russell, *German Higher Education*, pp. 352–369.)

Arrangement is made for various supplementary examinations to make up deficiencies.

It requires at least a year after leaving the university to prepare for and pass these various written and oral examinations.

THE SEMINARY WORK

After all examinations are out of the way, the candidate is required to pass one year in so-called seminary training, either at one of the twelve state seminaries for this purpose, or at some one of those established at *Gymnasiums* and *Realgymnasiums* by the rescript of 1890. From three to seven candidates successful in the examinations constitute the students in a given seminary for the year. They are under the charge of the director and one or two of his ablest teachers. The aim is to make the candidate thoroly acquainted with the work of the school with which the seminary is connected, and to give him opportunity to do some trial teaching under the guidance and criticism of the director and his chosen assistants. The first quarter-year is spent in observation in all classes and in all subjects. During the second quarter he makes his first attempts at teaching according to the directions of the leaders in charge. From these beginnings he gradually enlarges his teaching-sphere until he gives lessons during the whole hour, and often for a succession of hours, but always under the inspection of one of the regular teachers. The candidates are also intrusted with the examination of written work of the various classes. The instruction in any given subject closes with a sample lesson, at which the other candidates, the director, and the other teachers are present. Following this lesson at a suitable time there is a critical discussion of its merits and defects. At least two hours a week must be devoted to a session with the candidates, usually led by the director. There is much latitude allowed as to the choice and treatment of subjects at these sessions. Formal reports are relieved by informal discussions.

Toward the close of the year the candidate hands in a somewhat extensive essay upon some concrete pedagogical or didactic problem assigned by the director. At the end of the year the director sends to the provincial school board an elaborate report of the year's work. Upon the basis of this report, together with the results of previous examinations, the board admits the candidate to his final test, the year of cadet teaching in some *Gymnasium* to which he shall be assigned. This is called the *Probejahr*.

THE YEAR OF CADET TEACHING

Das Probejahr

For the year of trial teaching the candidates are assigned in pairs to the various *Gymnasiums* or *Oberrealschulen*, when they teach from eight to ten hours per week under the guidance of older teachers. They must do a certain amount of supervision, attend faculty meetings and identify themselves in every way with the life of the school.

Up to the end of this year they have received no pay whatever, but if their record is approved at the end of the trial year, their names are enrolled on the list of teachers eligible to appointment in the higher schools of the province. When so appointed they are teachers and state officers for life, assured that

with reasonable diligence they will have employment so long as they are able to work and then—a pension for the remainder of their lives.

COMMENTS

That all teachers in German secondary schools are men is a well-known fact. It may well cause astonishment in the United States where the number of men teachers not only shows no proportional increase, but suffers rather an absolute annual decrease, that any country can by any possibility induce enough men of approved quality to meet conditions so strenuous as to knowledge and professional training. The minimum is as follows: three years in the primary schools, nine in the *Gymnasium*, three in the university, one in examinations, one in the seminary, and one in trial teaching—eighteen years in all, not to speak of the one year of military training exacted of all able-bodied young men. Yet the seminary year was added in 1890, not so much that there might be more training, as that there might be fewer candidates.

To understand a situation like this, one must bear several facts in mind.

In the first place, the secondary schools are not democratic in our sense of the term, for the common schools, in which nine-tenths of the children of Germany are found, do not open into them at all. The *Gymnasiums* and hence the universities exist therefore not for the people as a whole, but for the education to those who form the professional and official classes. As a rule, it does not occur to a German university graduate that he might go into industrial life, and even if the idea did occur to him, it would soon be dismissed, for his training has been professional and leaves him unfitted for success in any other field. Broadly speaking, there is nothing for the German university graduate to do except to practice the profession for which he has been trained. If this chances to be teaching, a teacher he must be—or nothing.

If now it should be the case that candidates for the professions, teaching included, should increase faster than the population increases, it may easily be seen that what Bismarck called an educated proletariat would be formed. That is, a class of men who have their skill and nothing else to offer, and who might, indeed, become *Hungercandidaten.*

What are the facts? In the period from 1851 to 1861 the number of students in the German universities was 335 to each million inhabitants. This ratio remained substantially unaltered until 1871. From 1871 to 1876 the number rose to 386. From this time on, the development has been rapid. By the end of the year 1880 the number of students had risen from 13,029 in 1836 to 28,861. By the end of 1890 the number had risen to 32,756, and by 1905 had reached a total of 42,435, or over 705 per million inhabitants. This means that during the last thirty years the attendance at the universities has grown twice as fast as the population, and that consequently the demand for places in civil offices, in law, medicine, theology, and teaching has enormously increased. There are in general two applicants for every place, and, further-

more, a class of applicants who must have the kind of places they have been prepared for, since they are unfitted for anything else.

In American universities at present it is difficult to get good men to consider teaching as a career, the transition to industrial life being so easy and its prospective monetary rewards so attractive. That we could successfully impose the German conditions for entrance upon the work of high-school teaching is not to be imagined. Few men would apply, and the public would revolt in the case of women.

Furthermore, we have no means for carrying out any general system of cadet teaching, since local autonomy would place this matter at the individual disposition of the various school boards. It remains to be seen whether we could not by some system of benefits to individual and community induce high schools to undertake this much needed work. Candidates would serve for little or no salary, if only they were assured of a reasonable expectation of employment at the close of their cadetship, while school boards would consent to this arrangement if it were evident that on the whole the schools and the community would thereby be educationally benefitted.

XVI (*special*)

THE PRESENT TRAINING OF TEACHERS FOR SECONDARY SCHOOLS

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The task assigned to me in the preparation of this general report is one with easily defined limits. It is a study of fact pure and simple, entirely free from speculation with intent to discover the facilities for pedagogical instruction within the colleges and universities of our country. If we are to accept the rapidly growing feeling that these are the only educational institutions adequately equipped in their academic and scientific departments for the preparation of teachers for secondary schools, the study is one of the professional preparation of these teachers.

The sources of information are threefold:

1. Recent reports of the United States Commissioner of Education.

2. College and university catalogs as well as special reports of all sorts from those institutions.

3. A considerable mass of correspondence with various college officers, mostly professors of education.

From the study of the first of these sources of information it was found that 219 colleges and universities reported (*Rep.*, 1904) students enrolled in courses in pedagogy. The merest inspection of the list convinces one of its inexactness since several having successful departments of education are not included. Such institutions are, however, included within the study. On the other hand, a careful study of the catalogs of the institutions named in the commissioner's report discloses the fact that 21 of the number make no mention

of any pedagogical offerings. An attempt was made, thru correspondence when necessary, to secure the catalogs of all the 219 institutions mentioned, tho without success in 50 instances.

Of the 169 institutions whose catalogs were studied a limited number (16) offered so-called "teachers' courses" in specific subjects, as Latin, English, or mathematics, which were plainly but rapid reviews, useful as "cramming" courses for teachers' examinations; but since no offerings were made along strictly pedagogical lines, these were omitted from the study. A few institutions mentioned by the Commissioner are special schools for the deaf or blind and were excluded as plainly beyond the scope of this paper.

With such substraction and with the addition of institutions known to offer courses in pedagogy, but not mentioned in the list, we have as the basis of this report 148 colleges and universities of widely varying educational merit and elaboration of organization.

A considerable number of these institutions, altho classed by the Commissioner as "higher," offer academic and scientific courses scarcely higher in grade than those of the sophomore year of the better universities and perhaps theoretically should be excluded from this study. Practically, however, they must be included since they are the sources of supply for the teaching force of the secondary schools tributary to them.

In the statistical study of these institutions immediately following, made for the purpose of showing in a general way the facilities for pedagogical instruction, the following facts are presented:

1. Number of instructors of professional rank offering pedagogical courses.
2. Number of instructors of lesser rank offering such courses.
3. Number of instructors of both these classes who are also officially connected with other departments of instruction.
4. Total number of pedagogical courses offered.
5. A rough classification of such courses. (*a*) Courses in educational philosophy. (*b*) History of education. (*c*) Administration and method. (*d*) Educational psychology (where these courses are not offered in the department of education or pedagogy but by a separate psychological faculty they are not included). (*e*) Observation and practice teaching. (*f*) Seminars. (*g*) School hygiene. (*h*) School law.

By the term "course" is meant the offering of a single subject for one term. For the purpose of this study it was deemed inadvisable to take into consideration, either the varying lengths of courses (usually either two or three to the college year) or the varying number of exercises per week. To have done so would, in some ways, have increased its value but only at the cost of very greatly increased complication.

The question of classification of subjects under a reasonable number of heads was not an easy one to settle. More than one hundred different statements of courses were found. Whether the classification I have used is the best possible I should not wish to say. I am, however, stating it with sufficient detail to make it ful y understood:

Class A: All courses of a general philosophical nature. These are frequently under the title "Philosophy of Education." Courses entitled "Principles of Education" are also included when from the description it is plain that the emphasis is on the philosophical side; "Educational Classics" when the emphasis is not on the historical side. Courses in the philosophy of particular educators, as Herbart, Rousseau, Froebel, etc.

Class B: All general courses in the history of education. All special studies of the schools of particular periods or countries except those in present organization and methods. Educational classics when the emphasis is historical.

Class C: A very wide range of courses is covered by this group. Roughly, they may be divided into two divisions: (1) courses in organization and administration; (2) courses in methods of teaching, either general or in the teaching of particular subjects. Under the first division are the following: School organization, general pedagogy (not theoretical), school administration, the present organization of foreign school systems, etc. Under the second division comes general method and all courses in the teaching of special subjects, as Latin, mathematics, etc. These courses are frequently offered by instructors in other departments than that of education.

Class D: No courses in psychology were included which had not plainly a pedagogical application. Among those covered are the following: Educational psychology, genetic psychology, child-study.

Class E: These courses are fully discussed later in this report.

Class F: This group of courses were plainly for advanced students. Educational philosophy, history, and administration are included tho the latter predominates. The titles of the other two divisions are sufficiently expressive and need no explanation.

In the tabulation of data everything is excluded which applies specifically to the work of the elementary schools. Whatever applies to school in general or to secondary schools is retained. The University of Chicago and Columbia University offer many courses in elementary-school training, and many of the smaller colleges offer some work that must be excluded for the same reason. Such subjects as manual training, music, drawing, household science, physical education are not included because adequate data are obtainable from very few institutions.

The facts disclosed by the study of the 148 colleges and universities are as follows: Within them 357 different instructors offer courses of a pedagogical character. Of that number of instructors 278 are of professional rank. That so large a number are of this rank is due to the fact that within the smaller institutions, which predominate in the list, there are but comparatively few officers of a lower grade.

Of the entire number of instructors (357) 278 are officially connected with other departments in which they also give instruction. This fact is also largely due to conditions in the smaller institutions in which the pedagogical instruction is frequently given by the professor of philosophy. The custom too, even in the larger institutions, of having the courses in special methods given by instructors in the academic and scientific departments, is of influence here.

The total number of courses of the nature covered by the classification already given was found to be 935. The classification of these courses is as follows:

	Schools	Courses	Per Cent. of Total Number of Courses
Class A (philosophical)	37	74	8
Class B (historical)	123	196	21.2
Class C (organization and method)	148	469	50.7
Class D (psychological)	47	93	9.8
Class E (observation and practice)	in 36 schools.		
Class F (seminars)	27	70	7.6
Class G (school hygiene)	15	20	2.2
Class H (school law)	13	13	1.4

The exact nature of the work done in the particular subjects covered by this classification it is not easy to determine, either by the printed catalogs or correspondence. In the smaller institutions it is almost entirely thru the use of the textbook, and in the larger ones mainly so. In the former the single course offered is usually designated as "pedagogy" or "school management." The number of institutions offering courses in class A is largely augmented by a requirement of the Kansas law to the effect that all candidates for the teacher's certificate must be proficient in the philosophy of education. That being the case, all of the colleges of the state offer that subject. For class E (observation and practice) it was impossible to determine even the number of courses offered since the work is so often done in connection with other definite offerings.

The following institutions, however, profess to offer some facilities for the work. Just what is done in some of these institutions is shown later in this report.

Berea College
Brown University
Bethany College (Kan.)
University of Colorado
Columbia University
University of Chicago
Cornell College
Drake University
Fisk University
Howard University
University of Idaho
University of Illinois
Iowa Wesleyan University
Knox College
Kentucky State College
University of Missouri
University of Nebraska
University of Nashville
University of Nevada
Ohio State University
University of Rochester
Roger Williams University
Syracuse University
Throop Polytechnic Institute
Union College (Neb.)
University of Utah
University of Washington
University of Wisconsin
West Virginia University
Western Reserve University
New York University
Dartmouth College
Harvard University
Nebraska Wesleyan University

The following table shows with some detail the conditions of pedagogical instruction for a selected list of colleges and universities taken from the larger list of 148. Only those institutions were included for which conditions could be fairly well determined. Any inaccuracies may be ascribed to the difficulty of classifying the offerings.

TABLE I

Schools	Total Number Instructors in Education	Professors	Instructors, Assistant and Associate Professors	No. of Professors Who Offer Courses in Other Dep'ts	Total Number of Courses Offered	Philosophy of Education	History of Education	Administration Method, Management, Pedagogy	Educational Psychology, Child-Study	Seminars in Education	School Hygiene	School Law	Observation and Practice	Elementary Schools, Manual Training
Harvard University	2	1	1	..	6	1	2	3	..	..	..	..	yes	..
University of Illinois	19	13	6	16	35	2	4	21	..	6	1	1	yes	6
University of Michigan	14	14	..	11	23	3	2	15	1	2	..	..	..	..
University of Missouri	11	8	3	9	26	..	6	17	3	..	..	..	yes	8
University of Iowa	6	3	3	2	19	2	4	8	1	4	..	..	no	..
New York University	5	..	..	..	12	1	2	5	2	2	..	..	..	4
University of Chicago	21	9	12	18	48	4	7	27	5	3	2	..	yes	42
Columbia University	24	20	4	17	92	7	8	55	8	12	2	..	yes	44
University of Washington	1	1	..	..	7	1	1	4	1	..	..	..	yes	..
University of Nebraska	12	6	6	9	29	2	4	15	4	3	1	..	yes	7
University of California	11	3	8	8	28	1	6	13	4	3	1	..	yes	1
University of Colorado	4	3	1	..	10	..	2	5	1	2	..	..	no	..
Leland Stanford Jr. Univ.	9	3	6	6	16	1	2	10	..	2	1	..	yes	..
University of Rochester	2	2	..	2	2	..	1	1	..	..	..	..	yes	..
Dartmouth College	2	1	1	2	3	..	1	1	1	..	..	..	yes	..
University of Wisconsin	6	3	3	5	14	2	3	5	3	1	..	..	yes	4
Indiana University	3	3	..	3	6	..	1	3	1	1	..	..	no	.
Ohio State University	7	5	2	5	16	..	3	8	2	1	..	..	no	..
West Virginia University	8	4	1	..	15	1	4	4	1	5	..	..	yes	..
University of Texas	4	2	2	1	10	1	1	4	3	1	..	..	no	..
Brown University	1	1	..	..	15	..	2	8	1	3	1	..	yes	..
University of Minnesota	32	25	7	29	22	1	3	15	1	..	..	..	..	..

OBSERVATION AND PRACTICE TEACHING

The normal schools of the country have, from their inception, been centered very largely in the practice school. On the other hand, university departments of education have developed the instructional and theoretical sides first and are only just now beginning to give adequate attention to the practice school. It is probably truer than many of us would wish to acknowledge that it is as yet largely on paper. The following pages, setting forth with some detail the observation and practice facilities in a considerable number of institutions, were taken, in some part, from their printed announcements but more largely from correspondence with officers of the various departments of education.

The University of California and Leland Stanford Jr. University are required by state law to give training in observation and practice to matriculants for the state certificate; "at least one-third of the prescribed work in education shall consist of actual teaching in a well-equipped training-school of secondary grade directed by the department of education." This law went into effect June, 1906.

The University of California has been doing this for some years, using the city schools as a medium. So far the work has been chiefly in the grades. The university will soon maintain a high school of its own. Temporarily the Leland Stanford Jr. University will arrange for practice work in the San José Normal School.

Brown University possesses excellent facilities for the practical training of

teachers thru an arrangement with the school authorities of the city of Providence. Practice teaching is done under the supervision of the director of the training-department of the Providence High Schools, who is also the professor of the theory and practice of education at Brown University. The director confers with the principals of the high schools and the supervising teacher as to the arrangement of hours and classes assigned to the student teachers. He visits these classes frequently and confers with the principal in cases of discipline arising in connection with the work of student teachers.

The director nominates supervising teachers from the regular teachers employed in the high schools. The nominations must be approved by the committee on high schools in order to become valid. The university pays each supervising teacher fifty dollars for each student teacher of the first type assigned to such supervisor for full time. Any supervising teacher is entitled to free instruction at Brown University, tho the courses taken may not count toward a degree unless tuition is paid.

Students who wish to be enrolled as student teachers must hold the degree of Bachelor of Arts or the degree of Bachelor of Pedagogy from some reputable institution. They must be satisfactory to the superintendent of public schools and to the professor of education of Brown University. They must take certain prescribed courses in education at Brown University and such courses may count toward the Master's degree. Those who complete their work in the schools and in the college receive a teacher's diploma from the university. Weakness in discipline or in scholarship is sufficient cause for withholding the diploma.

Each year the committee on high schools appoints at least six student teachers (usually three of each sex), from a list of candidates who have fulfilled the requirements for student teachers in general. These students are termed student teachers of the first class. The city pays them four hundred dollars a year for their services and they are subject to the same regulations as the regular teachers except as to the amount of work they are required to do. Their work is arranged in accordance with the plan adopted by the committee on high schools.

Student teachers of the second class serve without compensation. They must do at least one hundred and twenty-five hours' observation and individual instruction under the supervision of competent teachers. The plan of their work is determined by the superintendent of public schools and the professor of education. The university requirements are the same as for student teachers of the first class. When they have received the teacher's diploma they have the same status before the committee on high schools as if they had been student teachers of the first type. In the appointment of regular teachers of the first grade, preference is given to those who have completed this course of training.

The University of Wisconsin offers no specific work in practice teaching

tho the department of German makes some provision for such work in connection with the elementary classes in that language.

At Dartmouth College the professor of education and the graduate students in education spend one week each year visiting the high schools of Boston. Students are also urged to visit the local high school. A number of students are employed as substitute teachers in the Hanover schools and a number assist in different college courses. Such work is carried on in connection with the graduate courses which such students are pursuing.

The University of Rochester does not attempt to give opportunity for practice teaching, tho the students in one of the Latin courses occasionally conduct the recitation of the class. Most of the students who intend to teach are given positions in the city evening schools, where they work under expert supervision. Some of the work in the evening schools is superintended by instructors from the university. The university furnishes substitute teachers for the day high schools.

At Harvard University all students in course "Education 3" must visit schools regularly the first half-year and they must make weekly reports of these visits. The reports are written and are at first made to cover a wide range; later they must cover the field of work of special interest to the individual student. During the first half-year the students visit and report on the work in every grade from the primary school thru the high school. During the second half-year the inexperienced students of the course teach for practice in the upper grammar grades and in the high schools of Cambridge, Newton, Brookline, and Medford; each student, teaching continuously some one class or section in some one subject for the half-year, being entirely responsible for the class or section of which he has charge, just as if he were the regular teacher. All the work in observation and practice is in the direct charge of one of the instructors in education from Harvard University. He discusses with the students their work, giving aid in outlining the lessons the students are to present.

The experienced students visit schools thruout the year, giving special attention to administration and organization the second half of the year. This course is open only to seniors and graduate students. The university offers one free course to one teacher for each student teaching in a given school up to the number of ten courses in any one year.

During one term (twelve weeks) an opportunity is given the students in education at West Virginia University to observe the high-school work of the Morgantown schools. About twelve or fifteen exercises are observed. For students who have taken a number of courses in education, there is a seminar or practucum which meets twice a week for twenty-four weeks. Each student presents at least six lessons in the city schools, being informed some days in advance just what lesson is to be presented in a given subject. One student prepares a lesson plan and presents it for criticism. Each member of the seminar also prepares a tentative plan of the same lesson, the entire class being

present when the lesson is presented. After the presentation of the lesson the instructor holds a conference of students for the purpose of criticism.

In 1904 the University of Missouri established the Teachers College High School which now enrolls about one hundred students. Nearly all the teaching is done by senior students of the Teachers College, who receive credit for their teaching the same as for any regular university subject. Students who are to receive the teacher's certificate must do practice teaching (from two to nine hours' credit) one semester. The practice work is under the direct supervision of the professor of theory and practice of teaching, who is also superintendent of the Teachers College High School, assisted by the heads of departments of the Teachers College. The high school is under the immediate direction of a principal, the girls being in charge of a lady assistant

The University of Ohio conducts no courses in observation but some instructors arrange for such work in the city high schools.

The University of Washington has no practice school but students who intend to teach are requested to do a semester's work in observation and practice in the Seattle public schools. One of the university courses which deals with secondary school curriculum requires students to devote one afternoon each week to observation in the city schools, under the direction of the professor of education. In connection with a course in supervision, students visit local schools to study the problems of organization and management.

The University of Chicago maintains a secondary school. The teachers are experts and students have an opportunity to study the workings of the school and the methods of instruction. The announcements of the university state that practice teaching is required in certain courses in mathematics; however, no information could be obtained as to where or how the work is done.

At the University of Colorado observation and practice teaching are carried on in the city schools and in the state preparatory school. The work in the city schools is in charge of the professor of education. The general direction of the observation and practice teaching is left to the head master of the preparatory school.

Observation and practice teaching at the University of Nebraska.

EXTRACTS FROM

The Professional Training of Teachers. Macmillan. G. W. A. Luckey, Professor of Education, University of Nebraska.

By an arrangement with the public-school authorities of Lincoln, the university students are given opportunity for observation and practice under direct supervision, covering both elementary and high-school grades. In order to obtain this privilege the student must have reached the rank of senior and be within one year of the requirements for the university teacher's certificate.

Students are required to take certain courses in education.

Partly for their convenience and partly on account of their strength, the students are divided into two classes, cadets and student teachers. The former give attention only to

observation of the regular schoolwork and to the assisting of the regular teacher in the classwork; the latter, in addition to the work of cadets, are called upon as substitutes, or supply teachers, to fill temporary vacancies. Cadets receive no pay, but student teachers, when supplying, receive pay at about one-half the usual salary. There are fifteen public-school buildings in the city, to each of which may be assigned one or more cadets or student teachers, depending upon the size of the building and the number of students registering for practice-work. Students visit the building to which they are assigned at last twice a week, spending two hours on each visit. They report to the principal for duty and are sent by her to one of the rooms, where they make themselves useful by assisting the teacher in the seat and classwork of the pupils, in distributing material, etc. In this way they become familiar with the general plan of the schoolwork, with the names of most of the pupils; so that, when later they are called upon to supply temporarily the place of any teacher in the building to which they have been assigned, they feel at home, and the pupils look upon and respect them as regular employees or teachers.

When two or more students are assigned to the same building, they arrange to have their visits come at different hours. The position of student teacher calls for more responsibility than that of the cadet, since the former may be called upon at any time to supply in the building to which he has been assigned, tho the supply-work of any student teacher will probably not exceed ten days per year.

The city superintendent of schools is a university lecturer on school supervision and he has the practical direction of cadets and student teachers.

A limited number of advanced students who are carrying fewer hours of university work are employed as regular assistants and readers in the high school. They give daily service and receive pay for the same at the rate of twenty-five cents per hour.

At Columbia University two practice and observation schools are maintained. In one of these opportunity for practice teaching is given. The other charges a high rate of tuition and the work is in charge of expert teachers. In the school first mentioned all work is in charge of special teachers who supervise the work of the student teachers. The second school affords opportunity for observation.

The English department requires twenty-four hours of English as a prerequisite to admission to the training-course. Students who have never taught are required to teach two or three weeks. This work is carefully prepared for and carefully supervised. All students are required to make a study of the work in the Horace Mann School; to make accurate and detailed reports of what they have seen, and to participate in critical reports of what they have seen, and in critical discussions on this work. The great need of the department is more time for practice. (Professor Baker thinks that, instead of one or two weeks, at least a month of such teachng should be required of each inexperienced teacher.)

The department of mathematics has a two-hour course in observation and practice. About one-sixth of the time is allotted to observing the teaching in certain classes, and five hours to general observation in the Horace Mann School. The rest of the time is devoted to teaching. All work is under the general control of the head of the department, who visits the classes as opportunity permits, and it is under the immediate supervision of an adviser of experience who meets daily each student who is observing or practicing.

The department of Latin follows two methods in the training of teachers. A certain amount of time, equivalent to about six weeks, one period per day, is devoted to observation in the various classes under the guidance of the teachers; they observe and report on the work that is done, and sometimes lay out the plans of lessons for the following day, which they can criticize in the light of the actual lesson. Finally, the students are given a certain amount of actual teaching. So far each student has been able to have but one or two weeks of actual practice in teaching. In the department of geology no attempt at practice teaching is made.

Students who expect to teach physiography in secondary schools do observation work. They also assist instructors in preparing laboratory materials and devising laboratory exercises and in an instance to individuals in group laboratory work.

At the University of Illinois, the Academy (situated upon the campus) and the city schools of Champaign and Urbana are utilized for observation and practice purposes. A two-hour course in observation is open to juniors and a three-hour course in practice is open to seniors. In the former, students are assigned particular courses, largely in the academy which they visit regularly for from four to six weeks, carefully noting the work done and having weekly conferences with the regular instructor and a member of the department of education of the university who is in charge of the practice-work. Students in the practice course teach regularly for some weeks a class assigned them in some one of the schools.

CERTIFICATES

A number of institutions offer a teacher's certificate upon the completion of a certain number of hours' work in specified departments. The University of Michigan appears to have been the leader in this movement and nearly all the courses leading to this type of diploma are similar to the requirements for the teacher's diploma of the University of Michigan.

In general, certificates are based upon three sets of requirements, viz.:

a) Special knowledge in the subject or group of subjects the candidate wishes to teach.

b) Professional knowledge. This includes courses in pedagogy and education, and usually psychology and logic.

c) General knowledge of science, mathematics, English, foreign languages, history, etc. This requirement is intended to secure as broad culture as possible.

These three groups of requirements will probably cover the demands made by all the institutions which grant such certificates of qualification to teachers in secondary schools. The courses differ in the amount of work required in the different groups. In several states the university certificate is honored as a teaching certificate and, after the holder has taught a certain length of time, the state superintendent of public instruction issues a permanent certificate to teach. Below are given extracts from the regulations of several universities which grant diplomas. No attempt is made to study the requirements of the many small colleges which offer certificates. Their

certificates are usually given to undergraduates, while the certificates here studied are issued at graduation or to graduate students.

University of Wisconsin: Special, major subject; general, same as for regular course leading to degree; professional, ten hours. A law enacted by the legislature of 1901 states:

"A diploma granted upon the completion of a regular collegiate course of the University of Wisconsin, if accompanied by a certificate that the bearer has completed the course of pedagogical instruction prescribed by the university for all persons who intend to teach . . . . upon presentation to the state superintendent shall entitle the holder to receive from that officer a certificate which shall authorize him to teach in any public school for one year."

Section 458 *b* and *d* of the *Revised Statutes* provides that after one year of successful teaching the diploma of a graduate of the university may be countersigned by the state superintendent, and that when so countersigned the diploma shall have the force and effect given by law to the unlimited state certificate, and may be honored as a teaching certificate.

University of Nebraska: Special, twenty hours (varies); general, qualifications for B.S. or B.A. degree; professional, eighteen hours.

The university teacher's certificate is granted to graduates of the university who have satisfactorily completed the work outlined below and have shown marked proficiency therein.

"The professional work required for the teacher's certificate may be elected by regular students above sophomore standing, by experienced teachers, and by unclassified students who satisfy the heads of departments that they are qualified to pursue the work.

"Under section ten of the school law of Nebraska, as amended in 1897, the state superintendent of public instruction is authorized to grant permanent state teachers' certificates after three years' successful experience in teaching. The certificates are also recognized by the authorities in a number of other states as sufficient evidence upon which to grant teachers' licenses without examination." They be may honored as a teaching certificate.

University of Missouri: Special, same as for major subject; general, regular requirement for graduation; professional, twenty-four hours. Gives right to teach. Life-certificate to teach in high schools. Same general requirements as for the degree of Bachelor of Science. As part of the twenty-four hours in education, the following courses must be included: 1*b*, or 2, 5*a*, 19*a* or 19*b*, and at least one special course on the teaching of some subject of high-school instruction. As part of the academic work, the candidate must elect at least eighteen hours in each subject which he expects to teach.

University of Illinois: Special, major subject; general, graduation; professional, fourteen hours. Does not give right to teach.

The School of Education grants no degree, power to recommend such residing in the particular college in which the student is registered. It has, however, the power to recommend the granting of a special certificate, the university certificate of qualification to teach. Upon this will be stated the major or majors of the recipient, whether definite subjects or instruction, special subjects for supervision or general supervision. All candidates for the teacher's certificate must take the following courses: elementary psychology (psychology 1 or 2, 3 hours); principles of education (education 1, 5 hours); high-school organization and administration (education 6, 3 hours), and three hours of work selected from the offerings of the department of philosophy.

University of California: Special, twenty hours; general, graduation, four groups; professional, twelve hours.

Special knowledge, twenty units, normally, in the subject or group of closely allied subjects that the candidate expects to teach, the ultimate decision as to the candidate's proficiency resting with the heads of the departments concerned. (In some departments more than twenty units are necessary.)

General knowledge, courses sufficient to represent (with the inclusion of special studies) four groups from the following list: Natural sciences, mathematics, English, foreign languages, history, philosophy. This requirement is intended to secure, so far as is possible, breadth of culture and sympathy with the various lines of high-school work.

For teacher's certificate the requirements are the same as for group elective, except that in the fifteen units of advanced courses candidates must include 11*a*, either 14*c* or one part of 23, and one other course from the list 11 to 14. If, however, they are combining advanced studies in economics, politics, history, or jurisprudence with English for their groups, they may sutstitute for this requirement of three philological courses, any one course from 11*a* to 14*e* and two in debating (7*a* to 7*c*). Courses 9, 10, 11 to 14, 17, 18, 21, 23, and the graduate courses are especially adapted to the needs of students who desire to teach.

Beginning with December, 1905, a final examination will be required of candidates for the teacher's certificate in English. The emphasis will be laid, not so much on detailed information as (*a*) on grasp of the subject of English in its twofold aspect—the language and literature, and (*b*) on scholarly methods and workmanship. The candidates will be expected to satisfy the department of English that they have: 1. A scholarly acquaintance with each of the three main periods of the English language and with the history of the development to the present time; 2. Familiarity, obtained at first hand, with the chief masterpieces of English literature, with the history of its development, and with the principles and methods of historical study; 3. Satisfactory special knowledge of one of the greater authors or of one of the main literary movements; 4. Training in the principles and methods of poetry and prose requisite to the advanced study of literature; 5. Skill in organizing and presenting thought, orally and in writing. Candidates are warned against supposing that the purpose of the examination can be attained by mere accumulation of courses in English. It will always be presupposed, however, that candidates presenting themselves for examination have an equivalent of twenty-seven units of English to their credit.

Teachers' certificates. The department will, in general, recommend, as qualified to teach mathematics in high schools, only such graduates as have passed with credit in courses 2, 4, 5, 6, 9, 11, 12*a*, 12*b*, 13, 18. It is also of great importance that the prospective teacher of mathematics should be well informed on the relation of mathematics to other sciences, and he should to that end devote a considerable portion of his time to at least one of the closely related sciences. The department further reserves the right to exact a practical test of the candidate's ability to present a clear and interesting exposition of subjects taught in the high schools. For those preparing to become teachers and investigators, the individual aims of the student will determine, after the fundamental courses have been taken, what advanced courses should be selected. The minimum for the teachers' recommendation is 1 (lectures only), 2, 3, either 4, 5, and 7 and 17.

Students who desire the teacher's certificate should do not less than eighteen units of group elective work in German, including courses 6*a*, 6*b*, 7*a*, 12, 18*a*, and 18*b*. The recommendation for the certificate is not, however, given in course, but only for high scholarship and general proficiency in German, as judged by the department. Applicants for this certificate will be required to take, in addition to the elementary courses, at least ten hours of junior and eight hours of senior work, but the formal compliance with this requirement does not necessarily entitle the applicant to the certificate; and in any case a fair speaking knowledge will be a requisite. Twenty-four units of physics will be required for the teacher's recommendation. Applicants for the recommendation in physics, in making up this number of units, must include in their work the equivalent of courses 1 and 3, with either course 4 or 2*a*. See statements under these headings, and under course 18. In all cases proposed combinations of courses should be submitted for approval to the professor of physics. The requirements for recommendation by the department are (*a*) 12 units of advanced work in Latin; (*b*) course 4; (*c*) Greek, course *A* (or its equivalent), but until May, 1907, a reading knowledge of French may be substituted; (*d*) a reading knowledge

of German; (*e*) an acquaintance with Roman political history; (*f*) the distribution of the 12 units of advanced work in such a way as to show acquaintance with ante-classical and imperial Latin, and with poetry as well as prose. Students will be recommended for teachers' certificates who, at graduation, or after, shall have completed with credit course 6 in addition to twenty-one units of university work in Greek. Graduate students will be recommended on proof of having creditably completed work equivalent to that required of undergraduates. Training-course for students intending to become teachers of chemistry, 4 hours, throughout the year; 1 hour lecture, 1 period (3 hours) assisting in laboratory instruction, and 2 periods (6 hours) of laboratory work. The instruction will be participated in by all the department instructors. Prerequisites: Courses 5*a* or 5*b*, 8. Courses 1, 2, 3, 4, 5*a*, 8, and 28 are prerequisite for a teacher's recommendation in chemistry.

A discussion of the teaching of history in secondary schools, with special emphasis on the methods and materials. The course is designed for seniors and graduates expecting to apply for a high-school teacher's certificate in history: Two hours, either half-year, Tuesdays, 3. Prerequisite: Courses 52, 54, 64, 63, and 73, and political science 1.

The department of history will recommend for high-school teachers' certificates only such students as have completed at least six units of each of the following six subjects: government, ancient history, mediaeval history, modern European history, English history, and American history. Those desiring teachers' certificates are advised to take courses 4, 5, and 9, with the prerequisites, but should consult with the head of the department early in their course. Lecture courses in summer session are equivalent to course 1 in part and credit will not be imposed each half-year for each laboratory course. This rule applies to courses 2, 3, 5, 6, 7, 9, 11, 12, 13, 14.

University of Texas: Special, major subject (eighteen hours); general, graduation; professional, ten hours ($3\frac{2}{3}$ courses), permanent teaching certificate; 2 years state: 2 courses in education and 3 other full courses; 4 years state: 3 full courses in education and 3 other full courses, 3 in education and diploma. Diplomas conferred by the board of regents upon academic graduates completing courses 1, 2, 3, 4, and one other full course or its equivalent in the School of Education. Corresponds to teacher's certificate of other universities. Teachers' course, a review of preparatory Latin authors and prose composition. Courses 3 and 4, at least, are prerequisite. Teachers' course in botanical method: This course will involve discussions of the botanical content or subject-matter of nature-studies for the grades, elementary agriculture for rural schools, and the more substantial course in botany for high schools; a short review of the fundamental relations of the science to a rational teaching method; consideration of the technical details of high-school laboratory work. Prerequisites, botany 1, or its equivalent, and where credit is desired in the School of Education, courses 1, 2, 3, and 4 in that school. The teaching of elementary mathematics: This course is intended for those wishing to become teachers of mathematics. There will be a discussion of the underlying principles and fundamental concepts of the subject showing the bearing of such principles and concepts on correct methods of teaching. A practical application of these discussions will be made to public-school work. It is hoped that this course will be of benefit to prospective teachers and superintendents. Special attention will be given to the teaching of mathematics in secondary schools. This course will be open to those who have had mathematics 1 or mathematics 2.

University of Michigan: Special, major subject; general, graduation; professional, eleven hours. By authority of an act of the state legislature, passed in 1891, the faculty of this department gives a teacher's certificate to any person who takes a Bachelor's, Master's, or Doctor's degree, and also receives a teacher's diploma as provided above. By the terms of the act, the certificate given by the faculty shall serve as a legal certificate or qualification to teach in any of the schools of this State, when a copy thereof shall have been filed or recorded in the office of the legal examining officer or officers of the county, township, city, or district.

University of Iowa: Special, major subject; general, graduation; professional, eighteen

hours. May be honored as a teaching certificate. Students who have completed the following work and who have met the other requirements stated shall be awarded a teacher's certificate in education: 1. Twelve semester hours in education, including the courses in principles of education and in child-study. 2. Six semester hours in psychology. 3. All other requirements for the degree of Bachelor of Arts in the college of liberal arts in this university. 4. The recommendation by the department of education and the vote of the faculty upon the basis of superior work, apparent aptitude for teaching, and the fulfilment of other requirements.[1]

University of Kansas, 1903–4, p. 82, teacher's diploma: The teacher's diploma of the university may be given to A.B., A.M. and Ph.D. graduates of the university on the following conditions: The completion of at least four years of college-work in the subject, or the closely allied subjects, that the candidate proposes to teach; the ultimate decision as to the candidate's proficiency to rest with the head of the department in which the major work is taken. The completion of two and one-half terms' work in the department of education. The candidate for the A.B. degree, who is at the same time a candidate for the teacher's diploma, shall be required to offer twenty-five terms (about 125 semester hours) of undergraduate work. The teacher's diploma shall be granted only to graduates whose scholarship in the twenty-five terms' work offered for the degree and the diploma averages as high as grade 11. On presentation of the university teacher's diploma the state board of education will issue a three-year state teacher's certificate. At the expiration of the three-year certificate a life-certificate will be issued, if the candidate has taught successfully during two of the three years. No observation or practice teaching.

Cornell University: A state certificate upon graduation good for three years, and renewable for life without examination, is granted to those who successfully complete a course in the science and art of education.

The university prescribed work is as follows: 1 psychology, general and educational, 90 hours; 2, method in teaching, 60 hours; 3, history and principles of education, 90 hours; 4, observation, 20 hours.

Students who do not complete the foregoing may receive a temporary certificate upon graduation good for two years, but renewable only upon state examinations in professional subjects constituting a full equivalent for the university courses required in the first alternative. The subjects for this examination are as follows: psychology, general and educational; history and principles of education; method in teaching.

University of Chicago (The College of Education): A diploma is granted after two years' work, but the regular course of preparation covers four years. As a prerequisite, 3 units of English, 2½ units of mathematics, 3 units of foreign languages are prescribed for admission to the college. The remaining 6½ units for entrance may be selected from the rest of the official list. Thirty-six majors (4 years' work) are required for graduation. The prescribed work of the first two years is philosophy, 1 major; psychology, 1 major; English, 2 majors; mathematics or science, 2 majors; electives, 6 majors; work in some special department, 6 majors. The work of the last two years (senior college) requires 18 majors.

ACADEMIC PREPARATION

There is a great difference of opinion among instructors as to the exact amount of work a student should do in any particular before he may be recommended as teacher of that subject. Institutions which grant teachers' diplomas have definite requirements. Sometimes the requirement is uniform. More frequently there is some variation in the number of hours required in different

[1] This certificate may also be awarded to graduate students who complete the work in education and in psychology and who receive the recommendation of the department of education and the vote of the faculty.

subjects. Frequently a minimum number of hours is required but provision is made for the including of related subjects with the major subject. Some institutions have no set standard of recommendation, the matter being left entirely to the discretion of the individual instructors. The number of hours in the special subject is left to the instructor but not more than twenty-five hours may be required in one subject.

At Brown University recommendation is largely a personal matter with the instructor and is not an act of the university.

At Harvard the same plan is followed. In chemistry two courses are required, but two more should be taken. In history about five courses in history and government might suffice. In mathematics three courses are required and, in addition to them, there should be an additional course in mathematics, or in physics above freshman grade. However, recommendations are sometimes made even if the candidates have not met the full requirement.

In French four years' work entitles to only a moderate testimonial. For a recommendation without reserve the candidate should have not only four full courses, but also one or two higher courses in the literature and should have good pronunciation.

In the department of zoölogy two courses are required, but most students expecting to teach the subject take much more. The English department seldom gives recommendations as a body, this being considered an individual matter with the instructors. The instructor uses his discretion in recommending candidates, basing his recommendation upon his personal knowledge of their ability. Latin and Greek have no very definite requirements but they must be pursued at least thru the sophomore year and the student must be familiar with Greek and Latin composition. Including the work the student has had in the preparatory school, this standard means about six years of Latin and from three to five years of Greek. The teachers of Latin must be well up in Greek.

The department of geology does not prepare many men for high-school work. Altho there is no definite standard, four courses would probably be sufficient to secure recommendation. The department of German requires three full years of work.

At the University of Wisconsin the department of history requires thirty hours; mathematics thirty-six; English forty; Latin twenty-six; and physics twenty-two hours. In some of the departments it is thought that more work should be taken if the student wishes to specialize.

Dartmouth College has no definite system of recommendation but it is probably safe to say that the scientific departments will want a man to have all the elementary courses and one or two advanced courses in his chosen subject, before he may be recommended as prepared to teach in a secondary school.

The University of Texas requires eighteen hours' work for the major sub-

jects, but the heads of some departments demand more work from subjects who expect to teach. In botany thirty hours (five courses) is recommended, tho twelve hours might be sufficient for the student who will teach botany as a minor subject. The English department asks for six hours of higher work besides the eighteen hours nominally required.

The language departments demand more work, German and Latin each asking for thirty hours. Greek should be accompanied by an extensive course in Latin. Mathematics requires about twenty-four hours, while in physics only sixteen hours are required. Physiography and zoölogy demand only eighteen hours.

At the University of Rochester thirty hours or one-sixth of the work required for a degree is the minimum preparation for the teacher of a special subject in the high school. Of this work in the special subject from five to fifteen hours are required, the other courses in the subject or group of subjects being elective. The university has no specific regulation as to the recommendation of its candidates but the plan mentioned represents very closely the standard applied to judging the fitness of a student for high-school work.

At Indiana University the major-subject requirement usually represents the amount of training that is the basis for recommendation to teach in good high schools. The major subject requires forty-five hours in the departments of Latin, English, history, physics, mathematics, and botany. In modern language the requirement is sixty hours. Besides the regular requirement in a subject the department may control twenty hours, in work closely related to the major subject. By permission a student may do more work than the forty-five hours required in the special subject. Students (special) who are specializing in certain subjects will usually receive preference in recommendation as teachers of those subjects. Students who do not graduate may receive a statement of the amount of work they have done in any department. Where a teacher is required who can teach several subjects the student is required to major in but one subject. Two years' work would be sufficient in any subject the candidate might be expected to teach, with the exception of modern language not studied before entering college.

West Virginia University requires thirty hours of English, twenty hours of history, and ten hours of physics. In Latin the student should, at the very least, have read all of Caesar's *Gallic War*, eight of Cicero's shorter orations, besides his letters *De Amicitia* and *De Senectute;* Virgil's *Aeneid*, together with the *Eclogues* and *Georgics;* the *Odes* and *Epodes* of Horace, and one book of Livy's *History of Rome.* No one charge should attempt to teach Latin until he has enough Greek to read the *Anabasis*, the *Iliad*, and the *Odyssey*.

There is a difference in opinion among the instructors of Ohio State University as to the exact amount of work that should be required of a student who intends to teach a certain subject. About thirty hours (22 U. of I.) or one-sixth of the total amount of work required for graduation will probably

represent an average of the requirements. Some instructors require students to take teachers' courses in the subjects they expect to teach.

The State University of Washington adapts its requirements to the grade of high school needing teachers. There are about seven high schools of the first class in the state. For recommendation to teach in this group the student must make the special subject he is to teach his major. To teach in schools of the second class he must also have about two years' work in any other subject he may be required to teach. To teach in schools of the third group, college preparation is required in two or three subjects but no definite standard is set.

The University of Colorado requires thirty hours' work, but this need not all be absolutely in one course or department; it may be in closely allied departments. Teachers of English and of foreign languages must have twenty-five hours' credit.

The School of Pedagogy of New York University prepares mainly for the work of the elementary schools. The institution has no definite requirement as to the amount of work a student must do to receive recommendation for a position as teacher in secondary schools.

At Columbia University the prerequisite for admission to secondary training in English is twenty-four hours in English. This work must include courses in composition and in literature. The literature studies must have included both the historical and critical phases.

The student must take six hours' work in the professional course which includes a study of the subject-matter from the teacher's point of view and a study of teaching. The student must also take the prescribed work in observation and practice teaching.

The minimum requirement for mathematics is eighteen hours but the best students usually exceed this amount. Many take from sixteen to twenty hours more than the amount required. The university requires six hours' work in the professional or training-courses. A graduate training-course of four hours may be taken.

A teacher of Latin should have a fairly complete and accurate reading knowledge of the language. He should understand the syntax and structure of the language and, in addition, should be versed in the auxiliary subjects of antiquities and literature, sufficient for the necessary illustration of his teaching. Eighteen hours must be taken before the student may be admitted to the training-courses. Twelve hours' work is required.

The official minimum requirement for the student who expects to teach geography is three years' work, three hours a week. This course includes a course in general geography covering the elements of mathematical geography, meteorology, and climatology, the land forms and the ocean, in which study the endeavor is made to go beyond the scope of these subjects as presented in any one of the leading textbooks. In addition to this, each student is required to make a special study in the course, of the origin and classification

of land forms, of the climate of the United States, and dynamical geology in the more advanced courses in the department of geology of Columbia University.

The minimum requirement should be supplemented by work in economics, geology, and advanced work in physiography.

XVII (*special*)

WILL THE SAME TRAINING IN THE NORMAL SCHOOL SERVE TO PREPARE THE TEACHER FOR BOTH ELEMENTARY AND HIGH-SCHOOL WORK?

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I. GENERAL STATEMENT

1. It is unwise and wasteful to classify prospective teachers at the beginning of their professional preparation because they all have inherited traits and capabilities which should be the criteria for their differentiation into classes.

2. It requires two or three years of instruction, intermingled with experimentation, to determine what these qualities are.

3. From the nature of the case, two or three years in the normal school or teachers' college should be devoted to such general courses of instruction and experimentation as will reveal to the student what his talents are.

4. The final differentiation into elementary teachers and high-school teachers should probably take place during the fourth year in the normal school and in the teachers' college. Even then it is doubtful whether the two classes of teachers need to be separated very widely. Perhaps 90 per cent. of all the professional or technical instruction and preliminary experience in the preparation of teachers should be common to the two classes under consideration.

5. The most effective and practicable scheme in the preparation of all teachers furnishes academic and professional instruction side by side and in the later periods joins with these some constructive experience in teaching.

II. BASIC FACTS

Professional preparation for all teaching below the college is predetermined by the following facts:

1. Adolescence frequently begins pretty low down in the elementary school period and ends early in the high-school period. It sometimes begins late in the high-school period and continues beyond the time of high-school graduation.

2. As to aptitudes and disposition, children differ among themselves in the elementary school fully as much as they do in the high school.

3. Elementary-school children manifest in some degree practically all the traits and impulses discovered in high-school children.

4. The subjects in the curriculum (whether for elementary schools or high schools) are relatively simple and easy, while the children to be taught (whether in elementary school or high school) are infinitely varied and exceedingly hard to understand and direct.

5. Sound scholarship in the content of the school curriculum is essential. But it constitutes only part of the teachers' burden of thought and study. The paramount problem is the school child.

III. ARGUMENT

Training is a bad word for our purpose. It savors too much of studied imitation, of conscious repetition, and the exaltation of routine. It suggests the substitution of drilling for thinking. It signifies prescriptions and rules dictated by instructors and acquired by would-be teachers. The dog and pony show illustrates what can be done by training. The prospective teacher needs instruction and practice in constructive thinking more than he needs training. He needs frequently to apply and test his knowledge in concrete experience of his own. He needs direction and exercise in the use of his constructive ingenuity. Opportunities for application and test of his knowledge are many and varied. In the great cities the potency of mechanism stifles spontaneity and power of personal reaction. In the country at large there is much opportunity for wholesome professional growth thru practice which is not overdirected. This may be in practice schools, or thru substitute work in schools of villages and small cities, but, best of all, in rural schools.

The typical graduate of the normal school and of the teachers' college goes about his work in too large a degree conscious of rules and prescriptions learned by him while undergoing training. But he should be nearly unconscious of acquired methods. He should attack his work with his energies centered upon the curious, inquisitive, kaleidoscopic group of persons given him to teach or exploit. During his professional preparation his skill in adaptation and his creative imagination need stimulating to the utmost. By effort he should acquire the ability to lose himself in guiding the learner and in adapting knowledge to the use of the learner. There is something in all this infinitely better than the thing we call training.

The curriculum used in educating children is relatively simple and stable; but the children furnish a varying stream of thought and action exceedingly complex and difficult to comprehend. We count out a few hundred facts to be taught in the high school. We classify, tabulate, and label them. We give ample reference to bibliographies. Most of the high-school teachers have spent some years in college learning the contents of the curriculum. We permit them to make diagnoses off hand and administer the medicine with reckless unconcern. Our prescriptions are dealt out chiefly by the rule of cut and try. No one has attempted to classify, measure, and label the children of the high-school classes.

Custom compels the elementary teacher to learn the natural traits of

children and to appeal to the children thru things which are known to them. But custom allows the high-school teacher tolerably free rein to follow his tastes and inclinations. Hence he usually patterns after those who taught him. With somewhat better scholastic acquirements than the elementary teacher has, he is frequently a narrower person, living more within his limited specialties, and teaching subjects, not persons. He is sometimes woefully ignorant of the child to be taught.

We are not likely to make progress, excepting in spots, until some parts of our educational creed are reconstructed. One of them innocently promulgated from the circles of higher education is to the effect that a half-educated person is good enough to teach children up to and including the last day in the elementary school, while a fully educated person is needed to take charge of the child on the next day in school, i. e., the first day in the high school. By this tenet the typical normal school graduate with insufficient academic attainments and much dogma stands for the half-educated person, while the university graduate crammed and surfeited with ill-digested facts and theories acquired in college lecture rooms represents the fully educated person. This creed is convenient and practical. It is more easily lived up to than a better creed would be. It is damaging to all education.

I think we should repudiate these invidious discriminations, for if anyone needs a college education it is the teacher who guides the children thru the varied subjects used in the grammar-school grades. If anyone needs critical and available knowledge of human nature in the uncertain period of childhood and the stormy stages of adolescence it is the teacher of the high-school child.

Most of the normal schools offer limited courses which high-school graduates finish in two years. This custom precludes separation of students with a view to preparing them for different kinds of service, because it is impossible in so short a time to differentiate and test the students sufficiently to determine the kind of teaching to which they are severally adapted. Out of a lot of two-year-old colts a horse-trainer, judging from structure, may select the trotting horse or the roadster or the one to pull the beer wagon; but we cannot so classify prospective teachers. One professor of education in a great university informs me that the girls entering his department have already decided to be high-school teachers. There is an educational caste in his state. He says the graduates of his department would be humiliated were they required to teach in elementary schools; but some of these prospective teachers are by nature and acquired traits adapted to the work of primary teachers and nothing else; others among them are versatile, forceful persons, adapted to the varied life of the grammar-school teacher and wholly unfit for the confining specialties of secondary education. But it requires many months of time to classify these persons and so direct their study and work that no part of their professional lives shall be wasted. It therefore seems clear that a teachers' college or normal school offering such a short cut to professional life as a two

years' course should devote itself to general courses of instruction and practice, leaving final differentiation to be determined after graduation.

But some normal schools offer academic courses covering the college curriculum, about two-thirds of the student's energy being devoted to academic subjects; about one-third, to professional preparation. Such schools offer special courses for the different classes of teachers. But they find that a very large part of all that the elementary teacher should know is needed also by the high-school teacher and vice versa. They find that the high-school teacher should not be ignorant of the phases of life in elementary schools; for it is impossible to guide with certainty the high-school student if the teacher is ignorant of the preliminary stages thru which the student must have come. As an illustration, suppose a would-be teacher detaches himself from ordinary family life for a period of five or six years and isolates himself in university life to delve in knowledge and perchance to write a hundred letters for research material out of which to make a thesis. Will he not certainly get out of sympathy with the ways of child-life? Is it not clear that he will have to serve an expensive apprenticeship in order to reinstate himself in the ideals of child-life? Must he not learn by wasteful experiment to interpret the inherited and acquired qualities in the victims of his empiricism?

The facts seem to show unmistakably the unsoundness of the doctrine that a child may at one time have for his teacher a sensible, practical, resourceful person of meager academic attainments and at another time a teacher of deep scholarship in a few specialties and dense ignorance in more vital things. And surely the typical normal school should stand for better scholarship in its graduates; but the university should remove the strong hand with which it clutches the high-school teaching corps. The normal school should look into and master the requirements of high-school instruction. The university should have a higher conception of the preparation of all teachers. It should be as close to the elementary school as to the high school. The university now stands for knowledge as against processes in teaching. It should go to the very foundations of that knowledge which appertains to the capabilities, inclinations, inheritances, and possibilities of the child and the youth to be taught.

This paper presents no specifics, devices, schemes, or mechanisms for preparing high-school teachers. It seeks to make clear some conceptions of life in education which ought to be wrought into the constitution of every would-be teacher.

The school child from six to twenty is a child thru all his years of schooling. He is the product of forces preceding him. His inheritances and experiences make him what he is. Without knowledge of these potencies his teacher cannot with certainty direct his energies.

We have a somewhat top-heavy high-school curriculum. Higher education provides for that and sends out peripatetic pedagogs to enforce its dicta. The typical high-school teacher lacks sympathy for and insight into the transi-

tion period of growing high-school children, too many of whom suffer with mental dyspepsia, being loaded with undigested and indigestible food for the mind. Fresh green graduates in the rôle of teachers are driving out our restless boys from the high schools. Girls being used to the cramping effect of conventionalities, cannot be driven from school by empiricism, tyranny, or routine. Yet they suffer much.

To meet the conditions teachers will have to be so prepared as to know the background below the plane of consciousness in the high-school child and to see how things must look to him. They will have to be capable of worrying over his habits and deeds. They will have to be able to discover the avenues to his consciousness. By instruction and trial they will be obliged to learn how to reach his consciousness thru its content in order to direct energy in the mastery of things outside that content. They have no right to invade classrooms with masses of knowledge all formulated and ready to transfer to the consciousness of the high-school child regardless of his previous knowledge and experience.

Each boy lives in a world of concrete tangible things. These constitute the soil in which to sow. But first they have to be discovered so that we may start the boy from things known to him in his work and play. Conceptions of grammar are nearly impossible to some sensible boys because they have no kindred ideas to compare it with.

This paper, therefore, ventures to suggest some mental states or attitudes with which efficient teachers by instruction or experience grow familiar. These states or attitudes need not be known in any particular form; but their recognition, study, and use become part of the conscious or unconscious habit of every efficient teacher in every school. Among these may be mentioned the following:

1. The non-receptive or unimpressionable state of mind. Students at times do not hear what is said to them. Tho respectful in bodily attitude their minds seem inactive or non-receptive. At other times they are wakeful, attentive, thoughtful, in *receptive attitude*. Many of them are non-receptive because the only existing avenues to their consciousness are ignored. The inattention of children is usually not their fault. It is just a part of themselves. No two are reached equally well at the same time thru the same avenues to their consciousness. Each child has a mass of concrete personal experiences thru which he hears and sees. He is receptive when approached thru these experiences. When not so approached he is non-receptive. Skilful and sympathetic teachers never proceed without believing that those to be taught are in receptive attitude. And it is for prospective teachers thru instruction and experiment to gain insight into varied human nature so that they may with certainty secure this attitude even from the most indifferent students.

2. Thru the *recitative attitude* we secure expression of the simplest kind of mental reaction. This attitude does not imply much thinking. It does not require much. It implies receptivity and just enough of mental reaction

to reproduce forms spoken or otherwise delivered or assigned by teachers. From primary school to college typical lesson assignments presuppose that lessons are to be looked at or heard and reproduced to the teacher in the way he wants them delivered to him. And, altho the recitative attitude signifies poor teaching and vague conceptions of the teacher's relation to the one taught, it is still the pedagog's mainstay, his stock in trade, his source of greatest pride. To lead young teachers to use it effectively and yet to realize its utter inadequacy by itself is one of the hardest and longest tasks in the preparation of all teachers.

3. The *reiterative attitude* is the recitative with concentration a little prolonged. It is based upon good receptivity. But the reciter in this attitude is unduly conscious of the forms of expression. He lacks spontaneity. When started on a paragraph or a page which he is to reiterate, he is like a boy coasting; it is disagreeable to be upset. He can't get another good start without returning to the point of departure. But I have visited many high-school teachers and college professors who rely chiefly upon the reiterative attitude and glow with enthusiasm when a poor parrot of a child can repeat, perchance in his own words, a long paragraph or a long lesson.

4. Without a generation of college professors who know good teaching and practice it, the preparation of high-school teachers can never succeed very well. So often the professor says to his students: "Read the book and get the author's thought;" or, "Listen to me and get my thought." But reading is not getting another person's thought. Reading is thinking; and hearing-language is thinking. So long as teachers and pupils meet chiefly for recitation their thinking is of a low type. Infinitely better than reciting and reiterating is cogitating. Every true teacher secures from each one taught the *cogitative attitude* of mind. But the typical professor dislikes to be interrupted in his lectures. He desires students to hear and reproduce "in substance" what he says. He seems not to know that hearing-language and observing and reading are all thinking processes requiring continuously the cogitative attitude of the mind. He is too commonly a recitationist; but he influences tremendously the high-school teachers. They follow his ways. His apparent purpose is to produce reciters rather than thinkers. He thinks and formulates for them. They recite after him. How delightful it is to run across those rare ones among us who are skilful in having students work out and think out and formulate subject-matter with them.

It is for normal schools and teachers' colleges to recast a great part of the current conception of the teacher's function and by a large variety of teaching experiments to bring all prospective teachers into a condition of constant eagerness to teach skilfully thru utilization of the ever-varying attitudes of those to be taught.

5–7. The *inquisitive*, *skeptical*, and *critical attitudes* of mind are suppressed in a large proportion of high-school and college classes. The typical recitation hearer does not enjoy them. They savor too much of disrespect for his

dogmatism. They throw him off his beaten track. They disturb his habit as a recitationist. They dislocate the adjustment of his oft-repeated story. They are too much like common life outside the school; they turn the mind from form to content. They lead toward definite questions, answers, arguments, and conclusions. They force issues to finalities. They are the delight of the full-fledged artist teacher in every school of every kind.

8. Another characteristic of good teaching is the *combative* or disputative mental *attitude* which implies living together as student and teacher and struggling with one another in friendly combat. In this attitude the student would not hurt the teacher's feelings, the teacher would not play boss or dogmatist, both student and teacher delight in courteously making unlooked-for interpretation of things, teacher and student live together in subjects, work out things together, indulge in sparkling, friendly cross fire, and welcome witty retorts made in good temper. But how can normal schools and teachers' colleges prepare teachers to skilfully utilize this state of mind? Partly, perhaps, by instruction, but more by exemplifying it thru companionship with students in classrooms while teaching classes in the ordinary academic subjects. And the college professor should give us a square deal and do his share.

9. The *discursive* or argumentative *attitude* of the mind is better still. As a school inspector I many times longed to discover some difference of opinion between the high-school teacher and his students. The peaceful, monotonous harmony which commonly prevails in the high-school classes, means low mental vitality and wasted opportunities. It marks long and slow growth into habitual credulity. Where the critical, honestly skeptical, inquisitive, cogitative attitudes are utilized, the many persons taught see and think of many things which the one person who teaches cannot see or think of. Frank and honest exchange of ideas as to how things look does not mean waste. It means joint action and larger thought product. It means divided responsibilities and definite conclusions. It does not mean opinions formed by teacher and taught to students. It means conclusions that stick forever because they are worked out in the friendly competition of many persons, each one's notion being tested by the criticism of many others.

10. Best of all is the constructively *synthetical attitude*. It is seldom found in the typical high-school recitation. It is sometimes found in the grammar-school grades where alert, well-taught, masterful teachers dare allow their pupils to think for themselves, to struggle with subject-matter, to sum up or build up conclusions and declare where they are, how far they have come, and what they anticipate in view of the mental structures already erected.

This list of attitudes is illustrative, not exhaustive. The typical normal school delivers recipes and prescriptions for doing things. The teachers' college in the university is perhaps a little worse; it quotes from a larger bibliography. Both normal schools and teachers' colleges are consuming their best energies learning and reciting what some one has thought and formulated. But the poorest thing by which we deceive ourselves is the mechan-

ism called the recitation. It assumes the student to be a reflecting machine to receive and return ideas and impressions. Professors who rely chiefly upon the lecture, the "quiz," and the "exam" seldom appreciate any process above the recitative. They assume receptivity. They are satisfied to receive back the content of talks and textbooks. When, by repression and bodily inaction, students lapse into somnolent torpidity, then inefficiency finds relief in note-books. Voluminous copies of profoundly obscure lectures are kept. Bodily action in note-taking keeps awake the students of many an inefficient professor. There is fatal sequence. Stenographers copy into notebooks what speakers say, put aside notebooks feeling free from worry of cogitation, and later on reproduce from notes exactly what was uttered. In like manner the pedagog substitutes transmission for cogitation, obstructs thinking, prevents face to face contact with living teacher and snatches away opportunity to comprehend and assimilate subject-matter while fresh and new.

"Quiz" follows lecture, further disguising professional unfitness. "Quizzing" is not teaching. "Quizzing" narrows thinking of many into channels of one. The "exam" concludes the hampering process. Much lecturing and "quizzing" call for much examining because teacher is ignorant of student's mental content and attitude. But lecture, "quiz," and "exam" are the stock in trade of many a friend of ours who never dreams of cogitating, analyzing, questioning, arguing, and working out with students the subject-matter to be dealt with, digested, and assimilated.

IV. CONCLUSION

All teachers during their professional preparation need in common:

1. To secure by instruction and experience a working knowledge of childhood and adolescence.

2. To acquire in teaching the habit of basing daily instruction on the learner's mental content and attitude in order to modify both his content and his attitude and accustom him to the habitual and independent reorganization of his mental content.

3. By trial in many phases of experimental teaching they need severally to discover themselves and what their several talents are, and in view of their talents inherited and acquired, what they are severally destined to do best.

To do all this will consume by far the greater part of the time and energy which teachers can devote to initial preparation.

Probably one-tenth of the labor in the professional preparation of teachers should be devoted to special pedagogical aspects of subjects to be taught. In these special aspects high-school teachers and elementary teachers, after differentiation and near the end of their professional preparation need separate instruction in such things as bibliographies, appliances, and the correlation of each separate subject with other parts of the curriculum.

ROUND TABLE CONFERENCES

B. MATHEMATICS ROUND TABLE

ADAPTATION IN MATHEMATICS

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The problem that is constantly before the teacher of mathematics is the adaptation of the subject-matter to the pupil. Commonplace as the statement may seem, the problem is a comparatively new one. The effort has always been to adapt the pupil to the subject-matter. Scholars in geometry and algebra have made certain organizations of those subjects. The great mass of teachers has taken these organizations almost without question, placed them before their pupils, and insisted on their getting them, usually requiring all to get them in the same way. If this "same way" did not happen to suit some members of the class, the teacher complacently assumed that they had no mathematical knowledge or power, and graded them failures. Except where classes are small, and it is easily done, little or no allowance is made for individual mental makeup, previous training, or immediate environment. Pupils are herded, and the work is adapted in a general way to the herd. One of the greatest questions before the teachers of mathematics is, how can two pupils in a same class be given mathematics when one requires an entirely different procedure from the other—that is, how the subject can be presented in a way adapted to the learning mind.

There is no subject in the high school in which so many pupils fail as in mathematics, which is only another way of saying there is no subject in the high school which is so imperfectly adapted to the pupils. You may examine the records of any high school you please, and you will find that where there is one failure in the languages or the sciences, the chances are there are four or five, or possibly more in algebra or geometry. I do not believe this should be so. If a body of pupils has met the standard required for admission to a class, it is doubtful if 10 per cent. of them should fail. Many would make the per cent. smaller, yet 20, 30, and even 50 and 75 per cent. are sometimes compelled by the teacher to repeat the work. I have in mind now a school which is typical in this respect. One of the teachers received pupils who had been given to understand that they had completed the work satisfactorily in the preceding classes. The teacher, when I knew him, had gone over the work for a number of years. He had the outline and the details clearly in mind. He utterly lost sight of the fact that the pupils in the class had not been repeating this subject for ten years, and that their experiences were very different from his own. So with the keenness and the sarcasm that too often comes out of such a condition he usually told about 40 per cent. of his class that they knew nothing about the subject, and that they would have to take it over, tho it was doubtful if that would do any good. This same teacher, as I remember it, took pride in the number that failed to do the work in his classes, and was inclined to boast of it. While the case I have described is extreme, it is not uncommon. I believe it is true in some degree in most of our high schools. The whole thing may be summed up in the statement that the mathematics of any year should not be harder than the pupils of that year can get, or presented in a way that the pupils cannot grasp. If a large per cent. of failures exist, it is more of a reflection on the teachers' ability to adapt than on the pupils' ability to master. Teachers who take pride in the fact that they make a large number of their pupils fail, or that they make it difficult, if not almost

impossible, for their pupils to pass in their work, will not be likely to look upon such a statement with favor.

To make more definite what I mean in the sense of adaption, consider the subject of algebra. While thinking about this question, I picked up one of the algebras on my desk, which is not especially different from most of the algebras in use, and found that the first eighteen pages were devoted to definitions, and the next twenty-five or thirty to abstract work. The definitions were generalizations, that are usually beyond the experience of the pupil; the abstract work, or exercises, as they are usually called, go smoothly enough, for if he sees a few of them work, he can easily get the others. These abstractions do not mean anything particularly; they do not stand for anything. After he has gained some mechanical expertness, he is given some applications, and every teacher of algebra knows how difficult it is to have him grasp those applications. Ofttimes they have nothing whatever to do with his experience. Just now it is the proper thing to use problems in the field of physics, which is helpful, provided, as usually happens, the physics involved is not more obscure than the mathematical principle. A year or a year and a half of such work, which is largely abstract, is given, followed by about the same amount of geometry. A majority of high-school students do not get mathematics during the senior year, except as they find it in some science, as physics. Then comes the college work, and many find they have forgotten all they knew.

Last Thanksgiving, the Central Association of Science and Mathematics met in Chicago, and an instructive paper was read before the mathematics section on the mathematics of the entering students of the Wisconsin University. The writer stated that a very large per cent. of the candidates made a very poor showing. He attributed this to the fact that too many of them had had poor teachers in the subject when they were in the high school. I do not recall that he said any thing about an equal failure in the languages or sciences; it seems that the trouble was in mathematics mainly. The examination had ten questions, eight of which were abstract and two concrete. The student had been expected to recall something he had not had for some years and which had no meaning to him when it was first studied. Is it so surprising that so many pupils know so little of mathematics, when they enter college or better when they leave the high school?

I doubt if any abstract work should be given to an algebra pupil during his first year; certainly none should be given during the first part of that year. Whatever is not concrete to him might as well be left out. I may work industriously on the definitions and abstractions usually given during the first lessons of algebra, and the pupil will not have as clear conception as he would if I said nothing about them, and got at once into the heart of the work with a problem something like the following;

The shortest railway route from Chicago to New York is 912 miles; how long does it take a train averaging 38 miles an hour to make the journey?

Solution in words: The product of the average number of miles per hour and the required number of hours equals the whole distance traveled; that is, 38 multiplied by the required number of hours equals 912. Hence, the required number of hours is one thirty-eighth of 912, or 24.

Solution using abbreviations: If, instead of the expression "the required number of hours," we use the word "time," or simply the abbreviation "T," the solution may be written: $38 \times T = 912$. Hence $T = 912$ divided by $38 = 24$.

The knowledge that the pupil has when he begins a subject should be made the basis of his work, rather than the knowledge of some learned man who made problems in physics or some other subject, which the pupil knows nothing about. The teacher of the past was satisfied to deal with the logic of the subject; the teacher of today has a harder task before him. As yet, most of us are satisfied to put the text into the hands of the pupil and accept results. Perhaps we are satisfied because it is the easier thing to do. Many do not like to do otherwise. Many will not do otherwise, but the future demands a change.

ORIGINAL DEMONSTRATIONS IN GEOMETRY

I. PURPOSE, NATURE AND METHOD OF PRESENTATION

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It has often been said that working original exercises in geometry constitutes one of the best means at our command of cultivating in pupils the power of clear, logical thinking. The question now raised is whether there is not some way of giving this educational discipline a deeper significance, and making its fruits available to practically all pupils.

It is also a common remark that in geometry the pupil has before him a set of tools, viz., the triangle, line, point, etc., which he must learn to use; and that in working original exercises, he must realize what tools he has before him and learn to select that tool or combination of tools best fitted for the work in hand. Perhaps something can be gained by carrying out this idea farther than is customary, by studying the utilities and properties of each geometric implement, getting the most practical order in which to master these implements, and the most advantageous way of taking up each one.

The question at once arises, which tool occupies the primary place? Which is used most, is grasped most readily by the pupil, and logically occupies the most central position. An examination of the 165 text theorems in a standard plane geometry shows that the triangle is used ninety-five times as an aid in demonstrations, while the next most common tool, parallel lines, is employed only forty times. Every attentive teacher must also have noticed that after the pupil has learned the use of the triangle he prefers to use this tool wherever possible. The triangle seems to mediate between the simpler elements, the point and line, on the one side, and the more complex, the polygon, the circle, etc., on the other. In like manner, far more applications are made of equal or congruent triangles than of the triangle in any other form. It seems natural then in teaching originals in geometry, to let the pupil master the use of congruent triangles first. Let this be done by arranging the propositions of the text so as to use the triangle as early and freely as possible, and also by arranging original exercises in groups, putting first a group of exercises in proving triangles equal. If the pupil is weak and cannot use equal triangles in the seven or eight forms in which they appear, limit the subject matter at first so that he has to choose between only two or three of the tool forms of equal triangles.

After the pupil has acquired the power of proving triangles equal, let him take up a group of exercises in which he utilizes this power in proving a pair of lines equal by means of equal triangles. This constitutes both a review and an advance. Next give him a group of exercises in which he is to prove a pair of angles equals by use of equal triangles, thus putting the tool whose use has just been mastered to a new application.

After mastering the use of the first geometric instruments thoroly in this threefold way, the pupil can proceed more rapidly. The use of parallel lines comes next, both naturally to the pupil, and logically in relation to the subject, since two parallel lines and a transversal form but a special case of the triangle. After this the pupil can be made to feel that the locus for some purposes is a more efficient tool than the triangle. Thus ask him to prove that the diagonals of a rhombus are perpendicular to each other. He will naturally do so by the use of triangles. Then bring him to realize that the desired result can be attained with half the labor, or less, by the use of the locus, and he will give this new tool a cordial welcome. At this point it is usually well to introduce from algebra the use of a symbol for an unknown quantity and of the equation, and have the pupil realize that these tools tho mastered in connection with another subject are useful in geometry also.

So far, no use of auxiliary lines will have been made. But now that we take up their use, a group of exercises will be given each of which calls for one or more such lines, and the pupil will be kept at work at this tool till it is mastered thoroly. Similarly the mastery of various other geometric tools, as inscribed angles, similar triangles, analysis, symmetry,

etc., may be acquired. Occasionally groups of miscellaneous exercises are to be introduced compelling pupils to use in combination all the instruments hitherto mastered.

In some cases it is worth while to bring out the toolage properties of a single theorem. Thus from the fact that two triangles are congruent if the three sides of one triangle are equal respectively to the three sides of the other, it follows that a triangular frame of iron or steel is rigid even tho hinged at the vertices. This is the unit of rigidity in girders, bridges, frameworks of all kinds, and is of vast practical importance. The value and use of this unit tool can be brought out by problems like the following: Will a quadrilateral frame hinged at its vertices be rigid? Will it be rigid if two points, one in each of two adjacent sides, be joined by a bar, and if so, why?

Sometimes tool relations (often reciprocal) can be mastered in groups. Triangles are useful in proving the equality of lines and angles. Lines and angles are useful in proving the equality of triangles. Triangles are useful in proving lines proportional, and vice versa. Lines and points determine each other reciprocally; so of lines and planes and points and planes. Some classes are much interested in making lists of the serviceable properties of each geometric tool or combination of tools and making comparisons of these.

Beside original exercises in direct demonstrations and constructions, of which alone we have been speaking thus far, there are other original or semi-original exercises to which the same method of treatment applies, the development of power to handle successive tools in these different lines being contributory to one common end.

Thus geometric drawing and observational geometry, even though treated in a very limited way, may be made to illustrate the tool functions of the point and line. Geometric drawing constantly illustrates the fact that two points determine an entire straight line, three points determine three lines, and the greater the number of points, the greater the possible efficiency of each point.

So the drawing of lines and angles may be made to illustrate the utility meaning of the axioms, and show that the axioms are to be regarded not so much as fundamental equivalences, as fundamental utilities.

Similarly, the economic functions of straight lines may be brought out from another point of view by showing their utility in the mensuration of areas of volumes. To make two or three linear measurements of a tank involves far less labor than to dip oil out of the tank and count the number of gallons dipped out. Hence questions like the following arise. The measurement of how many and what lines is adequate for the mensuration of the area of each plane figure, and for that of the surface and volume of each solid figure? Under what circumstances is it advantageous to use one linear measurement, or one set of linear measurements, rather than another? Thus, given that the mensuration of the area of the circle depends on the measurement of one of three lines, the radius, diameter, or circumference, which of these three lines is it most convenient to measure in determining the area of the cross section of a pipe whose ends are inaccessible (as in the hot-air pipe of a furnace)? In so simple a case even it is with a distinct thrill of appreciation and sense of new power that the pupil realizes that it is best to obtain the area by measuring the circumference.

Other concrete applications give a new and deeper grasp of the toolage properties of lines in relation to other objects. For example, compare transportation by rail with that by water. A railroad train approximates the line in form and needs a comparatively large and scattered crew and much apparatus to manage it. A steamboat has three dimensions and is, so to speak, concentrated near a point, whence it can be managed by a small crew. This difference is the chief source of superior economy in transportation by water over that by rail, and it is a principle which has important applications in many other fields.

In like manner the study of numerical exercises in geometry may be facilitated and made more significant by converting it into the mastery of a succession of tools. We may separate the power to handle the formulas from the power to carry on difficult numerical computations and learn each separately. First have groups of exercises involving the

numerical relations of various geometric objects in all their combinations and permutations, but in terms of small and exactly related numbers. Afterward have exercises adapted to develop the power of carrying on a long and complicated numerical computation. In this connection, but to a certain extent apart from it, groups of exercises adapted to give mastery of the most advantageous order of operations, of cancellation and other useful devices in computations, are to be worked.

A word may now be said about the application of the above method of studying original exercises to actual classroom work, and then something as to results obtained. In Book I, as soon as the pupil by study of the text propositions has become acquainted with hat is meant by a demonstration and with the use of the triangle, the class may be put to work exclusively on easy originals in proving triangles equal, and in proving lines and angles equal by means of equal triangles. From four to six exercises may be assigned at a lesson, and three or four more solved as sightwork, either at the blackboard by the entire class under the supervision of the teacher, or on paper as testwork. Thus after the class is under way practically an entire group is covered at a lesson. After the class has learned to use congruent triangles in original exercises, we return to the study of text theorems, but in connection with each daily lesson thereafter, more or less original work is done in various ways, as by assignment as part of the regular lesson, or as sightwork. At the end of Book I, more daily work in originals alone is taken up, and similarly thruout the subject.

By this means, every pupil who can learn any geometry learns to do originals, usually takes more interest in the latter than in textwork and succeeds better at it. In my own work, no pupil is passed in plane or solid geometry, or is certified as prepared to take a college entrance examination in these subjects, till he has passed a test in originals alone, as well as one in numerical exercises, and one in text propositions. Besides these direct results, the method of treating the subject outlined above gives other results which are of interest. It seems to have a stimulating and vitalizing effect on the whole subject of geometry. Many proofs which before seemed forced and arbitrary now become direct and natural. Every proposition comes to have meaning and value. The method seems to have an invigorating and vitalizing effect on the study of branches of mathematics taken up subsequently, as on trigonometry and higher algebra.

Some help is given toward the solution of the problem of the relation of intuition to logic in the study of geometry. For my part, I do not see how we can dispense with some intuition, that is, preliminary visualizing in geometry, or in any subject for that matter. For instance, the idea even of a straight line or a circle, is a highly complex one when considered apart from the intuition which we have of such an object. How do we know by pure logic that it is possible for a line to exist, all points of which are equidistant from a given point? But if the pupil makes a start somewhere in geometry, as near first principles as possible, for the sake of clearly realized advantages, later he will be ready to deepen and sharpen his logic for the sake of other plain advantages.

The history of geometry comes to have new interest. It becomes the study of a progressive series of new and improving tools. As a result of such study the pupil sometimes imbibes some of the dialectic of history and is seized with the ambition to invent new tools for himself. The problem of combining individual instruction with class instruction is also partly solved. If originals be grouped as indicated, it is possible to assign as a lesson, say three easier originals for the whole class, and two more difficult ones to be worked by the stronger pupils only. The whole class advances together, but its more gifted members gain a wider and deeper grasp of the subject than the rest of the class. The method is thus an important economy to the teacher who has large classes to conduct.

In like manner, it prevents the somewhat narrowing effect which the study of geometry is apt to have. If a pupil forms the habit of acquiring the mastery of a succession of abstract tools whose values are consciously realized, he should be ready to welcome any new and better tool wherever found. Hence we arrive at a correlation of studies which is not superficial and concrete, and so full of varied detail that someone has termed it not correlation,

but conglomeration; but at a unification by means of underlying utility principles. For instance, if the pupil in studying geometry acquires the habit of selecting the best linear measurements on which to make the mensuration of the circle, cylinder, etc., depend, when he comes to physics he will be ready to apply the same idea to the measurement of physical magnitudes. If he learns to realize the advantage of using auxiliary lines in the vivid field of geometry, he should be ready to use auxiliary objects freely in physics, chemistry, engineering, in ethics, sociology, and in fact find in such use a principle having a hundred applications for him every day.

Before I close, allow me to say a word on one other aspect of the subject in hand. For the past generation, educational theory and practice have been mainly inspired and controlled by the doctrine of evolution. The evolutionary philosophy of education has taken up and dominated other ideas, as those of Herbart and Froebel. We owe to this philosophy of education much of theoretic value and practical worth. But as a whole its tendency is brutal and materialistic. In the nature of things it is but a preliminary step. For we no sooner announce the doctrine of the survival of the fittest, than the question arises, what is fitness? What is value? What is worth? Hence a new philosophy, termed pragmatism is springing up, which is trying to answer these questions and give a broader and higher view of things, which shall include the doctrine of evolution as a mere detail. Perhaps it may be possible to analyze fitness into the elements which compose it, and then devise economical and efficient ways of mastering these elements. Perhaps also after we have made this analysis we may be able to arrive at some more fundamental and inclusive category than fitness. Something worked out along this line must, in the end, profoundly influence educational theory and practice.

As a step in the new direction, let us make a distinction between concrete and abstract utilities. The use of similar triangles to determine the height of a steeple is an example of concrete utility, or of putting a geometric tool to a concrete use. The use of similar triangles to prove a set of lines proportional, or a pair of polygons similar, is an example of abstract utility. Now if the pupil's mind be fed on the concrete applications of mathematics alone or preferentially, a low grade and materialistic appetite is generated in him. His outlook and tastes are apt to be narrowed and he will be satisfied with nothing that does not have immediate material application. If, on the contrary, he gets an insight into abstract utilities, he finds that these are comprehensive and enlarging. They include practical applications as details, and suggest other particular concrete, as well as other more general abstract utilities.

Now the method of teaching originals presented above may be termed the method of abstract utilities, inasmuch as it puts abstract uses in the first place. Concrete utilities are brought in occasionally to sharpen and correct conceptions, and make interest more vivid, but abstract utilities are omnipresent and controlling, and fashion the development of the subject. When thus realized, the method which we here advocate is seen to have new and wider values than those mentioned hitherto. The ends which we aim at in the study of geometry are, first, practical results; second, general culture. The ancient Egyptians in their use of geometry in land surveying, temple building, and barn measuring, sought only the former. The Greeks aimed only at the latter; we desire both. In attaining the mastery of abstract utilities we, in a measure, attain both. The idea of abstract values mediates and harmonizes both kinds of value, and causes them to interact in multiplicative ways.

Hence it is suggested that it is a method which has a field of application wherever we find it desirable or necessary to combine technical and culture studies. In this age when new arts and sciences are raining down from the sky so fast that one is kept busy dodging them to save himself from destruction, if we can discover in each department a certain idealistic toolage, master this in one department and use it in others, it will be the source of much needed economy and uplifting power. It may be, therefore, that the method here suggested is a step toward meeting some pressing educational needs in their larger aspect.

II. TIME OF INTRODUCTION AND LIMITATIONS

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I am not expected to make any argument in favor of the value of original work in geometry. While some may dispute that the power of reasoning developed in the study of mathematics is available in other subjects, perhaps all will agree that the reasoning-power developed in the proper study of geometry is available in other branches of mathematics.

Frank A. Hill, of Boston, in the *Educational Review*, some years ago said:

One peculiar advantage of right mathematical work lies in the completeness and accuracy of the results attainable. I am not underrating the value of study in English, in history, or in any of the vast, indefinite and never-to-be-compassed fields. I am simply saying that the demonstration of a theorem in geometry, for instance, may be brought to a kind of finish and completeness impossible in the study of a paragraph about the character of Henry VIII. or the causes of the Civil War, and that the student enjoys a unique consciousness of power in mathematics when he brings a piece of work to a triumphant end. I have noticed that when boys and girls in geometry, for instance, become once imbued with a thinking, investigating, inventive spirit, and with that conception of a proof which gives the child who has it confidence to stand against the world, the subject has a peculiar fascination for them. They work with enthusiasm; the real student glow is there; the inspiration continues operative away from the special influence of the classroom; and the emotional excitement of the "eureka" when the way has been discovered is hardly equaled in any other student experience.

My own experience and observation compel me to agree heartily with the author just quoted.

When should this original work begin? After many years of experience and, I confess, some experimenting, I am fully convinced that the time for this work to begin is when the study of demonstrative geometry is entered upon. Surely the student is entitled to all the help and inspiration he can get from the beginning.

I talked with one noted teacher and book-maker who advocated the plan of going thru the book, omitting the exercises entirely and then returning to the beginning and making a specialty of the originals. I am satisfied he was wrong on this point. I find it very hard to interest pupils in original work, who have been over the propositions of which the proofs are given in the book. It seems hard for them to appreciate the necessity, or the advantage at that stage of the work of their doing anything themselves.

At first only easy theorems and problems should be offered, and some of these of a practical nature so as to enlist the interest of those pupils who do not take naturally to pure geometry or to reasoning at all—and their name is legion. Put a little romance into some of the problems. Great patience and sympathy are required in the beginning with the average pupil. The teacher should put himself in the attitude of the investigator along with the pupil. Let it be understood that *we* are seeking the solution.

If you have never tried it I think you will find it much easier to stimulate interest in this way than to assume the attitude of being perfectly familiar with these things.

At a very early stage in the work pupils should be asked to give complete proofs without the use of paper or blackboard. It is interesting as well as surprising to notice how some will draw the figure, letter it, and give the demonstration as a purely mental exercise. I have found this exercise helpful in securing the attention of the class. Frequently the one reciting will be corrected for misplacing a letter, or something of that kind.

I think it is a great mistake to suppose that all valuable work done in geometry must be original with the pupil.

A glance at the textbooks in use 50 or 60 years ago will show that original work had no place in the course of study and apparently it had none in the mind of the teacher.

When the new plan was introduced, some went to the extreme that all work should be original, and they discarded the textbook altogether. Perhaps this was to be expected but was none the less a mistake. The pupil has not the time to find the proofs for all the material he will need in his future work. Besides it is very important to be able to take in readily a proof given. Even when originals are required it is of great value to direct somewhat as to methods and plans. In problems of construction, I would emphasize the idea of assuming the problem done and then finding such relations as will lead to the correct solution. I would also emphasize certain plans, as, for instance, when the hypotenuse of a right triangle is given as one of the hypotheses, it is always safe, as the first step, to describe a circumference on the hypotenuse as diameter.

Or a little more generally, when the base of a triangle and the angle opposite the base are given, construct the segment of a circle in which the given angle may be inscribed. The fact that the proofs that the circumference and the arc are the loci of the vertices of the triangles are so important and easy, adds to the value of this suggestion. These are of course only examples of many such plans.

These limitations for the mass of pupils leave abundant opportunity, for the full and free exercise of the genius of the best pupils. In my own experience, even with all the helps, suggestions, and devices at my command, while I have seen some good results and had much encouragement, I still have all too frequent occasion to repeat the beatitude: "Blessed is he that expecteth nothing for he shall not be disappointed."

C. HISTORY ROUND TABLE

THE NOTEBOOK: ITS VALUE AND ITS LIMITATIONS

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Great difference of opinion prevails among teachers in the secondary schools as to the value of notebooks.

Some of you will maintain that a notebook is a positive hindrance; that a pupil is usually content to put into it what he ought and otherwise would put into his head; that it is not a crutch to support the cripple, but that it actually causes the infirmity it is intended to cure. And others will say that the time spent in making a notebook would be more profitably expended in acquiring a better grasp of the subject-matter; that it is, therefore, a waste of time. Worse than all this, it is said to create in the pupil a dislike of history; that he rages, longing for the day of his deliverance; that the notebook is, to borrow a scientific term, a species of auto-intoxication, a natural and final putting to sleep of all interest in history. And, finally, it is solemnly averred by these advocates of "soft pedagogy" that the notebook is physically injurious; that it has even been known to cause nervous prostration.

These, then, are the main objections: dependence, waste of time, dislike of the subject, physical injury. A formidable list, if valid.

What, now, are the items on the other side of the balance sheet? Of what use are notebooks?

Can it be shown that the notebook fits into the general scheme of public education? Does it help attain the great object of education? What is that object? Many answers rise in your minds. Summarized, they perhaps come to something like this: "The acquisition of knowledge and the development of power." If inquiry should show that the notebook adds to knowledge and increases power, it may claim a permanent place in the schedule.

In the course of this inquiry its value and its limitations will be incidentally defined.

Waiving the discussion of the comparative desirability of knowledge and power, let us look at a properly made notebook.

The table of contents is well ordered in chapters with subdivisions appropriate to the titles; neatly lettered and accurately paged, this table, made from time to time, is, by the end of the year, a complete syllabus of the entire year's work.

Let us see what one of the chapters contains.

It opens with a short, suggestive outline, furnished by the teacher, who wishes the pupil to forsee what his study will make plain to him, and, to guard against one-author narrowness, here is a list of accurate references to both source and secondary authorities. Still further to point the way and give definiteness of assignment and preparation, here are questions set as problems for solution, variously framed to effect their various purposes; some of them grammatical, compelling the pupil to wrest the author's meaning from the text; others cultivate the historical imagination; some develop the setting of the period, leading the pupil to see it as a reaction from previous conditions and circumstances; still others lead to the grouping of facts; and some may even be beyond the ability of the pupil to solve with his present knowledge. The student's first exercise is the making of a text analysis as the basis for his further study. While the paragraph captions of the modern text interfere in a measure with the benefit to be got from this exercise, it may be made helpful by insisting that the pupil supply original expressions for the main heads of the analysis, and by requiring him to express under each of these heads the substance of the author's statements in the pupil's own words. The answers to the questions are next to be worked out; and in the recitation upon them we see that the pupil has gained by comparing his conclusions with those of his classmates; for here are class notes, set down, not in hiccoughing fashion, with dots and dashes to represent what he did not get, but in outline form, intelligently grouped in main and subordinate heads. Could he do this without understanding the matter under discussion, without attention riveted on it? Beside he is thus being taught to discriminate between main and minor points; he learns the beauty of tolerance; he tastes the joy of authoritative assertion. Moreover, by this exercise, that much-to-be-desired condition is secured of recitation by all of the pupils all of the time.

Now come reading-notes from source and narrative history. The author, title, and portion of the work read are accurately noted, and a few clear, concise statements show a summary of the pages covered. These notes are evidence that he has grasped the author's meaning; they have arrested his straying attention; they have compelled him to abandon the pernicious practice, too often indulged in, of penitential repetition of mere words which convey no clear idea to his mind.

From the reading of a simple source he has taken a refreshing draught from the fountain of history and has had a glimpse of how history is written from sources. By comparing the statements of different authorities and measuring them by a source he learns to be critical; he no longer accepts unquestioningly what is asserted; he ceases to be the puppet of the demagogue; the editor can no longer satisfy him with blatant declaration; his mind is broadened, his knowledge enriched; he learns to be accurate; he acquires the habit of authoritative statement; he scorns mere assertion of unsupported opinion.

And next, out of these various materials text analysis, reading-notes, and class notes, he makes his logical, final outline of the period. Having constructed the skeleton, he is ready to clothe it in a short narrative on some well-selected theme which calls into play his newly acquired knowledge, but along fresh lines.

Here is no dull repetition or plagiarism, clumsy and naïve, but clear setting forth in his own words of his own interpretations, sealed with the seal of original language.

The benefit from the narrative is great; it rests on the principle that only when knowledge has been expressed, orally, or in written form, or in thought may it be properly termed knowledge. In this day of large classes, individual oral expression is necessarily limited; the narrative furnishes the next best substitute. By it the pupil is brought face to face with what he knows, and, what is of quite as much importance, with what he does not know. How often we hear children say, "I know it, but I can't say it." Let them see their knowledge and their ignorance in the relentless mirror of expression.

Each page is, we see, headed to show the nature of its contents, and in the margin of the narrative are crisp, concise phrases summarizing each paragraph.

And here at the end is an alphabetical index of the chief events and personages mentioned in the book.

Now do you doubt that the pupil has gained both knowledge and power by the making of his book?

Understand me, no claim is made for the notebook as a panacea. Tact, indeed, and the judgment and skill of the trained teacher should guide the making; and, no doubt, in the hands of the tyro more harm than good would result; but, properly used, the notebook becomes of manifest benefit to the pupil who sees in it a means of apprehending and assimilating knowledge not the mere exploitation of a fad.

It is a great mistake to suppose that young people do not enjoy doing a hard thing; they like it, and are proud of their ability to do it. Moreover, as with the body, so with the mind, exercise whets appetite. And it is this tough fiber which the citizen of these United States must develop in order that he may combat and conquer the difficulties which confront him at the present time. Even to the superficial observer the times look threatening; to a student of history they are big with danger. It is the solemn duty of those who have intrusted to them the shaping of the character, the training of the intellect of the youth of this great nation of ours, to prepare and fit them for their civic duties.

I dare to cherish the hope that by this earnest conscientious, painstaking, loving work of making notebooks, these children are learning the fundamentals of citizenship; thoroness, accurracy, breadth of view; the power of neatness; the power to analyze; the power to construct; the power of sustained expression; the power of system; the power to carry out a plan; the power to look beneath the surface of an event for its cause; the power of suspending judgment; the power of patience; the power of efficiency; the power of truth.

The notebook is of positive use in the acquisition of knowledge and the development of power. Its limitations are the metes and bounds of trained judgment and common sense.

THE PLACE OF MODERN HISTORY IN THE HIGH-SCHOOL CURRICULUM

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The *why* of history teaching is a prerequisite to the *what*, the *how*, and the *how much* of history teaching. That is, it is essential first to know why history should be taught at all, what educational results are to be secured from teaching it, before we can know what part or how much of the limitless field to select and how it shall be presented to the students. Therefore the first thing is to determine what are the educational reasons for teaching history in the high school. The first part of this paper will be devoted to a brief consideration of this question.

It must be said that in some respects the reasons for teaching history are the same for the high schools as for the elementary school, and for the university. Of course there is some difference in the degree that these aims apply to the different grades, but the same ideas are or ought to be considered.

All subjects of the public-school course are in that course because they afford information or give a facility which will be useful in life, or a subject may give both information and facility. In some subjects the emphasis is on the information, in others on the facility. But the information or the facility gained in the one subject cannot be carried over into another, unless that other is similar in some way. That is, a power of reasoning in one set of ideas does not imply a power of reasoning in another set, unless that other set is in some way like the first. Reasoning-power in mathematics does not imply reasoning-power in biology or in history; nor does the reverse hold good. However, reasoning-power in

history would to a certain degree, imply reasoning-power in other social sciences, as sociology, economics, etc. Without further discussion of this point, then, it is a legitimate conclusion from the foregoing statements, that one subject cannot wholly, if to any degree, take the place of another subject; each contributes its own particular thing to the complete development of the individual Without claiming superiority of history over other subjects in all respects, and without denying to other branches the educational values claimed for them, let us ask what are the educational reasons for teaching history?

First, it furnishes much information of a practical kind. History is the record of what man has done individually and collectively, of the motives and forces that have operated to direct human actions, of the results of those motives and forces upon the human race. Can it be that the study of such records can be, as Herbert Spencer suggests, for amusement only and not for instruction?

Returning to the statement that history furnishes much information of a practical kind, is it not of value to the young mind to have it add to its own direct experiences, the experiences of individual and race in the past? Is it not desirable to enlarge the mental horizon by experience not directly had by each individual? Is it not desirable to teach the individual those facts which help him to understand something of what he is, why he is what he is, and how he became such as a member of society? Is it not worth while for the civilized person to know something of the process thru which civilization was developed? Is it not a thing of value for the individual to know something of how the commonest things and institutions about him came to be? What they mean and why they are of the form they are? All these questions may be answered by a quotation from the great thinker, Lecky, who says of history, "It is one of the best schools for that kind of reasoning which is most useful in practical life. It teaches men to weigh conflicting probabilities, to estimate degrees of evidence, to form sound judgment of the value of authorities. Reasoning is taught more by actual practice than by a priori methods."

Life is a series of problems which as a rule each individual must solve for himself. The facts to be considered in these problems are the acts and motives of men as individuals and in groups. How shall the individual be taught the facts and how to reason upon them? He can and must learn some of this by direct contact, by experience; but shall we not broaden his experiences and prepare him for a safer adjustment of himself by giving him the experience of others, and of the past? How else can the race make progress but by using the lessons of past experience? But the study of these past experiences is one phase of history. History deals with man's past experiences, it shows and explains something of present forces, it points to future tendencies. Certainly, then, the more of this kind of history that is taught, the sounder the judgment that will result. The more the individual will gain experience and power to meet and solve the problems of practical life.

What better way to make good citizens than to teach the youth practice in knowing and reasoning upon facts connected with government and the duties of the citizen toward that government? The facts of history are valuable. They deal with practical everyday life. They give practice in solving problems everyone must, to some extent, attempt to solve. A wide acquaintance with the right kind of history is a valuable preparation for citizenship. It is because the facts of history are so similar to those of everyday life that history lays such strong claims to giving information and training that will be of the greatest assistance in real life.

Second, history is a means of setting before students high types of character, and of giving them high ideals. It is character-building. Keeping high types of character and high ideals before the students will not make all of the students pattern their lives after them, but this method will do as much as any other to accomplish that end.

Third, it is a culture subject. Culture is knowledge of the best the past has produced. Along with this knowledge go refining influences of various kinds. By teaching knowledge of the habits, customs, institutions of other people, the ideals which lie back of them, and the struggles which these people have undergone to establish and maintain these things'

a sympathy with the progressive movements of the past and of people other than our own, is secured. To quote from the report of the Committee of Seven, "Many a teacher has found that, in dealing with the great and noble acts and struggles of bygone men, he has succeeded in reaching the inner nature of the real boys and girls of his classes, and has given them impulses and honorable prejudices that are the surest sources of permanent and worthy refinment."

Fourth, it is a means of teaching patriotism. It is not the only way of teaching patriotism, but it is one way. Real, enduring patriotism is the outgrowth of an understanding and appreciation of the trials and sacrifices that made possible our free institutions and the privileges and opportunities they afford. As Professor Hinsdale once said, "Study of the times that tried men's souls tends to form souls that are capable of enduring trial." A little of such appreciation is possible in the upper grammar grades, but it is in the high school chiefly that this must be accomplished.

Fifth, history is a good moral teacher. It affords practical concrete illustrations, which may be so presented as to clearly point the moral, but not take the form of preaching. The choice of material and the method of presentation will do much to determine whether history gives moral lessons or not, but it would be difficult for even the worst teacher to obscure the great moral progress of the race. The advance in civilization is a moral advance. Any study of history must reveal moral progress as illustrated in rules of war in treatment of defective classes, in the abolition of slavery, etc. The student will have gotten little from his study of history if he has not seen these and similar evidences of moral advance.

Sixth, history touches many interests. It deals with people of all ages and of all times; it shows all phases of activity, political, religious, social, industrial, etc., and therefore, if fairly well presented, it appeals to a large number of people.

Ere this it must have become evident that the kind of high school in mind is the one which is really preparing its students to be good citizens, which is aiming to give that general intelligence and those strong sterling qualities and virtues that characterize our highest types of manhood and womanhood. No other kind of high school has any right to exist.

A high-school course in history, arranged and carried out so as to secure the results just suggested, is perfectly practicable. Doubtless most of our high schools follow these aims in part, some of the best ones completely.

Now, let us see how the course in modern history as a part of the history program is, or may be, in harmony with the aims just stated.

The usual meaning of the term "modern history" as covering a period of European history from somewhere near the end of the fifteenth century down to the present, is here adopted. This paper does not depart from the commonly accepted period nor regions in what is to be considered as modern history; but it does contend that the subject-matter of modern history should be determined by its adaptability to securing the ends which have just been set up as the aims of history work in the high school.

Both the time and the country in which the school is located determine to some degree the nature of the course in history, because the ideals of education differ from time to time, and from country to country. But it has been assumed that the American high school is the one under discussion here; hence the character of the course in modern history must be determined from the point of view of the American high school. The reasons for teaching history in the high school as before stated, will be taken up in order, and the place of modern history in reference to them discussed.

First, does modern history furnish information of a practical kind? Leaving out of consideration American history as a part of modern history, because that has a special year in the program, modern history gives the foundation for an understanding of present-day American institutions. It is today an almost universally accepted idea among educators that American history and government are essentials of every school course, because of

their useful character in preparation for citizenship. But for four centuries American and European history have been closely connected. The foundations of American institutions and history being in Europe, a study of mediaeval and modern Europe is essential to an understanding of our history, i. e., to a preparation for good citizenship.

In a country where the population is made up of so many elements, where so many modern nationalities and national characteristics are represented, as in America, some study of those nationalities and their characteristics must be made. How else can an understanding of our own institutions and ideas be reached save thru a study of the types from which they come, the conditions that have brought about changes, the forms of these changes, and the difference between these institutions in America and in the country of their origin? We must study modern European history in order to get the information necessary to an understanding of our own history. Modern history does, then, furnish information of a practical kind.

Again, modern history gives the information most likely to furnish a sound basis for reasoning on important world movements. In the future, as a most active world-power, a power which, whether we wish it or no, must take part in the great world-movements, America must be wisely guided. In a government such as ours, where public opinion is so powerful, the greater the intelligence on questions relating to history and government, the greater the chance for intelligent direction and guidance. History will not make all people wise, but constant dealing with historical and governmental facts and notions, and practice in reasoning upon such things, will make the future citizen who is to influence public opinion, more capable of forming sound judgment. Now, if the United States is to have a larger and larger part in world affairs, is it not of greater import than ever before that Americans understand more of the history, institutions, and ideals of other countries? Some schools give a course in English history and that is very valuable for the purposes just mentioned; but that is not enough; for other countries besides England are also concerned, and it is modern history that gives the desired information relating to those countries.

It may be said that too few attend school as far as thru the second year of the high school where modern history is taught, to make the question of intelligent citizenship important. It must be admitted that only a small percentage of the citizens of the United States have now actually as much education as is represented by two years of high school, but the time is at hand when that percentage will rapidly increase. Even if it should not, it is wisdom to do all that can be done for those who do take the work, however few.

Modern history, then, should have an important place in the high-school curriculum, because it gives information of a practical sort, information that will make clear our American history, that will make better judgments on American questions possible, information that will make for general intelligence and better citizenship.

Second, does modern history, as history in general, afford abundant opportunity of setting high types of character and high ideals before the students? The names Pitt, Gladstone, Cavour, Stein, suggest some of the higher types of character; the struggle for the elevation of the middle and lower classes to a higher plane industrially, politically, socially, the struggles for the overthrow of special privilege, the growth of general education; the struggle for humanitarian advancement, etc., suggest some of the high ideals. But why illustrate further? Anyone familiar with the modern history of Europe will find no lack of material for this purpose.

Third, is modern history a culture subject? Tho ancient history is in some respects superior for this purpose, yet much of the best civilization produced in art, in music, in literature, in government, in humanitarian institutions, in ideals of all kinds, is abundantly represented in modern history. Where is a better opportunity to give some of the elements of this culture than by teaching of these things and how they have been attained? Modern history dealing with the struggles of men to reach the higher things of life, will broaden the sympathies and refine the feelings.

Fourth, does modern history help to teach the American boy or girl to be patriotic?

American institutions and American law are based upon certain ideas of broad human sympathy, such as the equality of men; that men have a right to life, liberty, and pursuit of happiness; that governments derive their just powers from the consent of the governed; that when a government becomes oppressive the people have a right to change or abolish it; that there shall be freedom of worship and of speech, etc. These are the principles that are held dear by the patriotic American. They constitute in large part the basis of his patriotism. But how and why were these ideas adopted and established? This question can be answered by modern European history, and in part by that only. The struggle of the people of Europe for religious toleration, for political freedom, for economic and industrial justice is one long commentary on the underlying principles of our own system. Will not a study of such things help toward the true appreciation of what we were given by the sacrifices of our fathers? Surely we can more fully understand and appreciate our own institutions if we read of the struggles of the Third Estate in the French Revolution, or of the efforts to secure freedom of speech in the English parliament, or of the development of English political and religious liberty, or of the many struggles for representative institutions in the various countries, or for the realization of nationality in Germany and Italy, etc. But why multiply examples? It must be clear to everyone that modern hisory, may be made to teach patriotism to the American high-school student.

Fifth, as a moral teacher modern European history has no superior. Nowhere else are there more and better examples of the moral advance of the race and of the individuals of the race than in modern Europe. The rapid advance in civilization in modern times is due in large part to a moral advance in ideals. But there is not time to illustrate further.

Sixth, as a subject of interest to a large number of American people, a people composed of elements from all races and nationalities of Europe, modern European history is superior to any other, unless it be American history. It therefore can fairly claim a place in the curriculum on that ground.

The next important question is, what shall be the subject-matter of this modern history that it may be made to secure the results here claimed for it. At present no more can be said than that the material must be selected from the points of view indicated in the preceding pages. Further discussion of this question is not possible in the time limit, nor indeed is it within the scope of the subject of this paper.

Now, to sum up; because modern history gives information of a practical sort that will explain our own American history, that will make possible better judgments on questions of actual life, that will make for better citizenship; because it furnishes to the students examples of high types of character and high ideals; because it is a culture subject; because it helps teach the American boy and girl real patriotism; because it is a good moral teacher; and because it has great interest for many persons, it makes strong claim to a prominent place in the high-school curriculum. But since the reasons just stated are the chief reasons for history in the high school at all, it follows that modern history is entitled to an important place in the history course. Because it is essential to an understanding of American history, and because it is more directly connected with our own civilization than is ancient history, it ought to be given more prominence than any other history save our own English-American history. And because it trains for general intelligence, culture, good citizenship, and practical life, generally, it makes a claim to being one of the most important subjects in the whole high-school course.

DISCUSSION

R. H. HUNT, principal of high school, San José, Cal.—I find it very easy and delightfully simple to express my appreciation of the well-prepared and thoughtful paper just presented. It is a pleasure, moreover, to concur in Mr. Miller's main theses and thoroly orthodox conclusions.

All that remains for me to do, therefore, would seem to be to add some weight of emphasis to a few of the propositions made, to recognize the difficulties of matter and method in securing the desired results, and to suggest a synthetic view-point as the best key with which to open the doors of the great treasure-house of our past.

I would particularly emphasize the identity of the history of Europe with American history. We have become accustomed to this concept of identity as applied to England and the United States; why not advance a step farther across the British Channel, if you please, and understand that American colonial history can be rightly understood only when interpreted in terms of the history—politics and religion—of Spain, of France, of Holland, in fact of western Europe? If the history of Virginia cannot be studied apart from the asserted rights and prerogatives of the Stuart kings, neither can the occupation of California be understood without the colonial policy of Spain and the missionary zeal of the Roman Church, nor the vicissitudes of Canada and parts of the South be comprehended without the pathetic but significant story of the Huguenots and the early portents of revolution in France.

Next I would add a word of emphasis to the thought that some European history should be taught in the grammar school. No better time can be found than the sixth grade for the creation of preliminary—yet not inaccurate—impressions of those great institutions like monasticism and feudalism, and those powerful movements like the Crusades and the Renaissance, and especially of commanding personalities like Charlemagne, Alfred, Luther, and a score of others, all of which had such profound influence in shaping the current of universal history. Such instruction will admirably serve the double purpose of furnishing an important foundation for the systematic study of American history and of making possible the more intensive as well as more comprehensive study of European history in the high school. In this connection it is gratifying to mark the prominence given to western Europe in the "Provisional Report on a Course of Study in History" by the Committee of Eight from the American Historical Association.

I must before closing at least make mention of two points that might well have been discussed at greater length in a consideration of our topic. The first is the practical difficulty of teaching so intricate and complex a subject as modern European history. This of necessity involves the most judicious selection and rejection of material in so vast a field. For the purpose of this discussion I would date modern history at least back to Charlemagne and have it cover in general the field of the second-year history course as undertaken in most of our high schools. The difficulties of the subject when considered in the light of its importance demand the best-prepared and most skilful instructors as well as the most advanced classroom and library helps. Our teachers in San José have found the *Heath History Syllabus* well adapted to this work provided the library is furnished with an abundance of suitable reference books; and for the next year we have decided to allow an option of three leading textbooks instead of requiring all pupils to buy the same.

The last point I shall make is foreshadowed by a clause I have just used about selecting and rejecting material. What should be the subject-matter of this course in history that is making such claims? I have time to answer only categorically. It must not be chiefly military, nor must the merely political everywhere dominate. It must be partly biographical, it must include much of the institutional, the industrial must be interwoven with the political, the literary and the political must be studied in the light of the religious. In a word, since history is the truthful record of developing humanity, having to do with the whole of man's life and interests, the aim of instruction must ever be a *social* aim, and the pupil must thus be led to that fundamental truth that history is a single, on-flowing current of human activity. Nowhere can the noble concept of the *unity of history* be more effectively taught, nowhere can the *spirit of history* be more advantageously inculcated than in the course of modern European history under the guidance of an instructor who is at once sympathetic, judicious, and scholarly.

D. SCIENCE ROUND TABLE

THE VALUE AND LIMITATIONS OF QUANTITATIVE WORK IN PHYSICS AND CHEMISTRY

GEORGE C. BUSH, SUPERVISING PRINCIPAL, SOUTH PASADENA, CAL.

Much has been said and written of late concerning the value and limitations of quantitative work in physics and chemistry. One has only to flip over the pages of such school magazines as *School Science* to see that this kind of work has been the cause of much thought and discussion. Before entering into a consideration of this subject I wish to make a few statements concerning the presence of physics and chemistry in the curricula of high schools. First, they have long ago established their claims as instruments of education. Second, while unusually rich in opportunities for arousing interest and developing power, they should not be expected to yield strange and marvelous results. They should be judged just like every other subject in the course. Physics and chemistry cannot be given with a guarantee to make a student out of a failure in other subjects because of interesting apparatus and amusing phenomena. They sometimes do this thing and perhaps a little oftener than textbook subjects—this on account of the laboratory method which enables the teacher to diagnose and prescribe for the individual rather than the class. Third, the aim of physics and chemistry is to sharpen the observation, teach accuracy, develop reasoning, bring the pupil face to face with the unity and harmony of nature, give useful information with which these subjects are teeming—above all to develop power.

The charge has frequently been made, and by persons high in the educational world, that these subjects are not as attractive to pupils as they used to be, especially physics. Dr. G. Stanley Hall shares this view. They may not be as attractive, but we certainly believe that as they are now taught they are more powerful as instruments of education. I recall my own extreme enthusiasm in physics as a student in the high school fifteen years ago, where nothing bordering on quantitative work was attempted, where we simply reveled in the recitation of the wonders of the science, and where on examination I worked a problem in momentum by multiplying the mass in pounds by the velocity in feet per minute and received a perfect mark, while the superintendent's son, who had a key, solved it by multiplying the mass by the velocity in feet per second and was marked wrong. We were fascinated by the subject except for the mathematics, loaded with erroneous ideas, made imaginative to a degree, deluded into thinking we knew a great deal about physics and anxious to learn more, but, after all, left to learn at some future time the real science and to profit by its course of reasoning. I recall my struggle with my first year's work in university physics. Quantitative work may not give entertainment of the "oh my" type in which the science is lost in the confusion of mind likely to accompany the experiment. Quantitative work well done will, however, give that inward joy, the feeling of power, the pleasure of the philosopher that prompts the student to further and greater activity. This is a thing that counts strongly in education. I do not mean to say that quantitative work has the advantage over qualitative in prompting additional efforts. The reverse is true, ordinarily, but quantitative work in doing this does infinitely more for the student in developing his powers. For purpose of entertainment, for arousing that wild enthusiasm which we hear teachers once were wont to impart to pupils, we will concede that quantitative work has its limitations. More is demanded of us, however, than the creation of a desire to do some real work in the subject somewhere, some day.

The term quantitative work, it seems to me, has taken on an exaggerated meaning, made to embrace work bordering onto research, giving the notion that it is very technical and very difficult, and thereby bringing itself into disfavor as high-school work. Quantitative work does not need to be difficult—in fact it should be made as easy as possible and yet accomplish the purpose. In point of difficulty, intricacy and expense of apparatus, and in time consumed there should be no great difference between qualitative and quantita-

tive experiments. There is likely to be a difference in difficulty on account of the teacher's inability to make the pupil get out of the qualitative experiment all that should be gotten. The mathematical nature of quantitative experiments necessitates finer work and the pupil is not slow to recognize this. It is surprising to see how much pleasure is manifested by pupils in being able to test the accuracy of their work. They soon come to prefer this kind of laboratory experiment. They say they know when they have finished. We all like definiteness in a task.

The chief limitations of quantitative work result I think from the selection of experiments and the presentation by the teacher. The teacher is then, after all, if empowered to select the experiments, the cause of the limitations. I have no patience with the set of arid, parched, and lifeless experiments which start out with work with the sliding scale, vernier and micrometer calipers, spherometers, chemical balances, etc.; not that these things are not of value, but that the proper time to study them is when they are called into use for a definite purpose. The vernier and micrometer calipers are not interesting to the average boy or girl and excite curiosity and respect only when the need is seen of exact measurements, which time may be late in the course, perhaps when the barometer is used and when the laws of strings and the resistance of wires are studied. The question of quantitative work is hopeful if the pupil can be led to the point where he wants to know and wants to do in order to find out more. He should then be given the opportunity to do. James says that it is not in the moment of their forming but in the moment of their producing motor effects that resolves and aspirations communicate a set to the brain.

The quantitative experiments should be selected not for their disciplinary value but for their use in elucidating and verifying the work of the classroom for which purpose they are indispensable. Suppose, for example, we are beginning on a course in chemistry. Oxygen and hydrogen have been studied. The law of definite proportions is then presented. What possible reason can there be for asking the pupil to accept this on faith. Why not let him convince himself of its truth by a few simple quantitative experiments like burning a known amount of magnesium and weighing the product, and decomposing a known amount of potassium chlorate and getting the products? Where is the difficulty in these experiments that should bar them from the course? Why should a pupil be asked to accept the statement that one-fifth the air is oxygen when by means of a bottle, a graduate, and some pyrogallic acid he can soon demonstrate it? With what joy he reports a result which approaches the accepted amount and with what positiveness he states it when later asked to give the composition of air. Is this not worth while? A simple experiment like this, however, requires the closest supervision of the teacher, without which any quantitative experiment is likely to fail. Guidance at every step is imperative.

What would be thought of a course in chemistry that omitted a discussion of the combining weights of the elements and of the atomic theory. Why not introduce the pupil to such a theory by a series of experiments in hydrogen equivalence? They have a right to ask why when these laws and theories are presented to them. There can be no objection in point of time spent, difficulty, or expense, in finding the hydrogen equivalent of zinc, magnesium, and aluminium that is commensurate with the great value of such experiments. And so on thru the entire course. Thru experiments of this kind one gets a realizing sense of the laws of nature by coming into direct contact with them. Confidence in nature is established.

In physics how can the exactness of an exact science be impressed unless quantitative relations be demonstrated? It seems to me that it would be like throwing away ammunition for a teacher to fail to make use of the many quantitative experiments possible in this subject. They above all others, in addition to the light they shed upon the subject, afford to the pupil the means of developing observation, reasoning, and imagination. The personal equation which enters so largely into every quantitative experiment adds attraction to it if reasonably accurate results are within the limits of possibility of the apparatus. In no other way can accurate notions of the various physical units be impressed. A

calorie of heat means something after the specific heat of a few substances has been found. Pupils may give with absolute accuracy the definition of a unit without understanding its real meaning. Why does a pupil go into the laboratory after making a fine recitation concerning the insulating properties of cotton and wrap the cotton covered wire around the binding post and expect a flow of current. I have watched this matter for eight years and have seen it happen again and again. Often the best pupils were guilty of this. Of course the mistake was often soon detected and corrected yet it emphasizes the need of direct contact with the things under discussion to get a realizing sense of them.

In disciplinary value quantitative work excels. Keener observation, more cleanliness, greater accuracy in manipulation, better reasoning, and a finer comprehension of the entire experiment is necessary to success. The co-operative method of getting answers common to all departments of work finds little application in closely supervised quantitative work. The classes, however, should be small and all computations should be made in the laboratory.

I have already said that the real limitation of quantitative work is not the fault of the experiments. The teacher is responsible for its shortcomings. I have taught classes in history, mathematics, and different branches of science and I am ready to say that there is no comparison between directing quantitative laboratory work and teaching other subjects. If quantitative work accomplishes what I claim for it, then a generous amount of good hard work must be done by the teacher. I know from personal experience what will happen if the teacher relinquishes even for a short time his hold upon the work. To begin with, the experiments must be carefully selected to illustrate points that have come up for discussion in the class. The apparatus must be tested to see if sufficiently accurate results can be obtained to illustrate the point. Sources of error must be removed or pointed out and then the most careful vigilance given in order to correct blunders, assist in difficulties, suggest modifications, direct the reasoning, and even to help frame conclusions. I would not burden the pupil with percentages of error. Perhaps you are saying, Why not let the teacher do the experiment? It certainly would be easier for the teacher and insure more accurate results, but what is the course designed for, the science or the pupil? We all recognize the fact that it is easier to do a thing ourselves than to teach others to do it. Even if the teacher does do half the work and the thinking, the pupil is better off than if the teacher had done it all, expecting the pupil to follow it and grasp it. It must be remembered that we are using the subject-matter of physics and chemistry as means of education of the pupil. In the hands of a competent teacher, one willing to work hard and long, who knows all the weaknesses of the experiment by personal performance of it, quantitative work will interest, instruct, and inspire.

It has been said that the idea of the grandeur of science has been weakened by too much quantitative work. One likes to revel, it seems, in the utter impossibilities and improbabilities of matters scientific. Great good has been accomplished if quantitative work convinces that something cannot be gotten for nothing, that a vest pocket chemical fire extinguisher is a delusion, and electric finger rings a fake. Who it is that makes all the wild statements as to what will be accomplished by electricity in a few years, how its application will be extended indefinitely and its price reduced to mere nothing? Surely not one investigating its laws. A quantitative study of Ohm's law and associated laws might take the poetry out of such dreams.

Quantitative experiments are doing a good work and will do more as teachers learn to use them. Too much has been undertaken both in extent and complexity. Too much attention is given every year to devising methods of making quantitative experiments out of everything. Heaven knows we have enough now. I believe in progress but I also believe that the average boy or girl in high school has something else to do in addition to his physics and chemistry.

DISCUSSION

W. A. FISKE, instructor in physical science, high school, Richmond, Ind.—It has always been interesting to me, as no doubt it has to others, to watch the growth and development of scientific work. Pick up a textbook in physics fifty years old and you certainly find a book of great interest. It contains not a trace of the word laboratory, not even a quantitative thought. These things were left for later days.

When we consider physics from a laboratory standpoint we find that three stages or periods have existed: first, the period of no laboratory; second, the period when there was a tendency to all laboratory; and third, a more conservative period, or that of a middle ground, a return to more class and lecture work. When we think of this unsettled condition of affairs there comes to our mind an expression of Goethe. A friend once said to him, "Why do you care so much for Homer when you cannot understand him anyhow?" To which this great German replied:

Neither do I understand the sun, moon, or stars, but as I look upon these mysterious orbs as they pass over me day by day, and as I ponder their wondrous ways, I think at the same time: When shall I ever be of any importance, and when shall I know the real truth of things.

That is the main object we have in so often discussing these questions, to find a little truth to which we may anchor our hopes and build for the future.

The purpose of laboratory work is not that of discovery, or not verifications in itself, but as the writer of the paper has said, to bring the pupil to a realizing sense of things; to cause him to know, to think, and to do things that he may find out more.

Quantitative laboratory work possesses a dignified nature. Such experiments give the student the impression that he is doing something, and not that he is merely engaged in play.

This kind of laboratory work may have a bad application, if the experiment is made the end in itself. All experiments should be worked in connection with the laws and principles which they illustrate and should not be delayed until the end of the subject in hand. The number of experiments should be few, as simple as possible, and easily within the grasp of the pupil.

The value of such experiments to the pupil cannot be overestimated. They teach care, patience, accuracy, cleanliness, skill, and careful and systematic thought.

It has been said by a writer in a recent scientific journal,

If a student is able to handle correctly a spherometer or vernier caliper, if he is able to measure the focal lengths of a lens without dropping it on the floor, or if he can handle any piece of apparatus, successfully, wipe it off, and lay it away as he found it, he has made an acquisition for life.

Finally, this kind of work, as has been suggested by the author of the paper, while being alone in the laboratory must have the constant care and attention of the teacher in order to make it of the greatest value to the pupil

CARL I. INGERSON, instructor in physics, Central High School, St. Louis, Mo.—Students seek the line of least resistance and find it in qualitative experiments. We have been kindergartenizing education. College presidents report entering students more poorly prepared than ten years ago. High-school principals report the same with regard to those coming from the grades. We can help to make the students better thinkers by plenty of strong quantitative work.

J. FRANKLIN WALKER, principal of high school, Anaheim, Cal.—On the contrary, work is much better done in the high schools today than it was ten years ago.

C. M. WESTCOTT, Redlands, Cal.—I believe a certain amount of qualitative experiment should have a place. Any supposed weakness of the schools of today compared with those of ten years ago cannot be due to the introduction of qualitative work, since there is today more and better quantitative work than there was then.

A. B. MARTIN, principal of high school, Marysville, Cal.—We have used the plan of giving one day to recitation on a given subject, then two days to laboratory work on the same subject, followed by two days of recitation on the same subject.

The request was made at this point that the opinion of the section be obtained as to the relative amounts of quantitative and qualitative experiment desirable. A vote was unanimous that in physics quantitative experiment should exceed 50 per cent. and one-half present thought it should exceed 75 per cent. In the study of chemistry it was voted almost unanimously that quantitative experiment should not exceed 10 to 25 per cent.

LEWIS B. AVERY, principal of high school, Redlands, Cal.—Qualitative work in science gives a philosophical view-point and is generally cultural in effect. Quantitative work is purely scientific. I am of the opinion that a general view of any science should precede its minute scientific study. In the Redlands High School we give a half-year preliminary cultural course in physics which is as nearly compulsory as may be, and follow this by an elective year with strong quantitative work. This preliminary half-year is conducted without textbook and is in the form of illustrated lectures and experimental answers to pupil's questions. The requirement for entrance to the room each day is the prepared notes on the preceding day's work. After a three-years' trial we are fully convinced of the value of this general course for those pupils who get no more physics and for those who take the quantitative work as well. The latter class know what they are doing and where they are going: they see the trend of the work that they do and its general bearing upon the whole subject.

THE USE OF THE MICROSCOPE IN BIOLOGY CLASSES

I. PURPOSE OF WORK WITH THE MICROSCOPE

WALTER M. KERN, PRESIDENT STATE NORMAL AND INDUSTRIAL SCHOOL, ELLENDALE, N. DAK.

Much is being said and written these days about the "new education." Somebody seems suddenly to have discovered, what most of us are inclined to believe people always knew, that the child is dual by nature; that he possesses receptive and expressive faculties; that they are intimately related, "useless each without the other;" that impression must precede expression, and that the highest type of training is that in which both receptive and expressive faculties are jointly trained. The boy who works at the lathe, who turns from wood a cylindrical form, has fashioned his conception in the concrete. The finished product represents impression transformed into expression, and the mental training acquired in mastering the tool, in manipulating the power, instruments, and material, represents that type of education in some quarters denominated the "new." So with the microscope. These two instruments have at least one point in common; they open up a new world to the experimenter. They are the agents thru which his untried powers seek to try, to investigate, to know; by which the mind, thru the medium of hand and eye, acts and reacts upon the unknown and untried; and the proper use of either may well represent that type of training in which the student's powers of initiative are developed in gaining knowledge at first hand, while their use indicates that we have gone back to Locke and Pestalozzi in our attempt to put in practice our educational ideal.

The microscope in secondary-school courses has played a various and diverse part. We have had three types of science-teachers in secondary schools. The first of these belonged to the "old school." He was the teacher whose receptive faculties had been highly trained. He knew his sums and he knew his texts. He believed all the wonderful things that some compiler had written about nature. He knew the names, the pictures, and the derivation of much of the nomenclature of the flora and fauna described. He knew a few of the forms that greeted him afield. He had unbounded faith in his text. He would believe it rather than the evidences of his own senses. It contained an excellent résumé of what someone sometime, somewhere, thought about the things to which it

pertained. It related in but a very minor degree to field and pond—to that nature with which the universe is alive. The teaching lacked the vital element; there was none of that eager impulse that follows personal contact; and the students went thru life believing that off somewhere in earth or sea or sky are more wonderful things than most men have dreamed about. Of their own parish they were unfortunately ignorant. And this was the old school which some of us have occasion to remember; happily passing into the great beyond.

And the second type is the opposite extreme; the university graduate who has been trained in microtechnique and who is possessed with the idea that high-school pupils must of necessity be interested in whatever interests their teacher. There is a pond near at hand, but material for class use is purchased from a marine supply-house because such a proceeding lends an air of dignity and superiority to the transaction. The course is planned to lead to the mastery of the microscope; the study of cell, chromatophores, crystal, rudimentary tissue, soft tissue, thick-angled tissue, stony tissue, milk tissue, sieve tissue, tracheary tissue, groups of tissue, etc., exact measurements and drawings. Of the local flora and fauna; their life history, adaptation, and classification the student knows almost nothing. He does know much about the use of the microscope and microtome and is able to use these instruments to some advantage. Such teaching is the result of an impatient zeal on the part of an over ambitious teacher. The students have certain advantages. Their markings are accepted without question, but one is prone to feel, after all, that there is something foreign and irrelevant for the majority of the student body.

Happily we have come to that state where, if our heads must be in the clouds, we realize that we must keep our feet on *terra firma*. The third type of teacher attempts what Cicero denominates the "golden mean." The archaic teacher, intent on the text, makes no use whatever of the microscope. The budding specialist makes it his *vade mecum*, the cardinal point about which all knowledge revolves, the be-all and end-all of the secondary course in biology. It was to be expected that we would swing from one extreme to the other, but since the balance has ceased to vibrate it is easy to approximate the correct position of this instrument. Field work has a most fundamental place in the study of biology. Beginning with a clear distinction between organic and inorganic, it is the adamant upon which future comprehensive training must be built. The work of the student in the secondary school must, of necessity, be introductory. He must be taught a method of work; must know how to study; must appreciate the value and utility of materials. He must know the local field and work thru it. He must know something of distribution and its causes; must know adaptation; must have such a training in types as will enable him readily to arrive at an approximately correct determination of a form's systematic position among the orders. He must know something of the relationship existing between plants and animals and between the different groups of each respectively; must be able to reason from structure to function; must know morphology and physiology, and whatever purpose the microscope may serve in such a course will constitute its legitimate field. The extent to which it is used must depend in a large degree upon the locality and the view-point of the individual instructor. If material is abundant, and if the instructor believe that emphasis should be laid upon some special branch whose representatives are prevalent, such as the arthropods or phenogams, the work with the microscope may be limited to the study of slides representing gross structure. Such a course may well proceed from the study of individuals through family, order, class, and branch to the conception of a kingdom and embrace a systematic and logical body of knowledge. Or an equally logical and more extended course may embrace a knowledge of the leading characteristics of the chief branches of animals and plants, and thruout the course the microscope may be a daily necessity to the working student. Such courses are logical; their pedagogical content intensive; and in either the microscope has reached a sphere of usefulness that is at once proper and legitimate.

Primarily, and aside from the discussion of prevailing methods and the proper position

of the microscope there are at least four major fields which embrace the proper use of this instrument.

I. It introduces the student to a new world.—There is a world beyond the range of the unaided senses and into it the microscope ushers the student. It has been well said that the purpose of education is always the same but that the means vary according to our conceptions of life. The microscope is one of the means to an end. Thru the avenue of the eye we acquire most of our information concerning the things about us. Try as we may, all our senses are limited, the perfectly-developed eye being no exception. The microscope supplements artificially the eye. It illustrates how man takes up and carries forward nature's work. All of our native senses are blundering, inaccurate, and crude. With all our boasted knowledge and skill the great mass of physical phenomena lies beyond the range of human sense. It has been said that the vast extension of human knowledge since the days of Galileo and Newton, grouped broadly under the name of science, has been chiefly the exploration of the world that lies beyond our primitive senses. The microscope is the tool that introduces us to that "unseen, unheard, unfelt, universe whose fringe we are just beginning to explore."

II. It affords training in muscular control.—The student comes to this instrument after the greater muscles have acquired a large degree of growth. All his life the student has done things that called into service the larger muscles. Where use is made of them expression is fairly accurate and creditable. The mind is gradually seeking to bring the finer and more delicate human mechanism under proper control. It is training in skill versus strength; the light stroke at tennis versus the battering ram of the gridiron. Whether the student is proceeding analytically from the whole to the related part, or synthetically is constructing the whole from the parts, he is at work in a field where delicacy, accuracy, and precision are required, and the results will depend upon the age, maturity, and efficiency of student and teacher and upon the proper handling of the tool with which they must labor.

III. It affords technical training in precision.—Carl Snyder is authority for the statement that the aim of all scientific endeavor is to "describe natural phenomena, including all visible and invisible things, matter, life, and mind, by simple mechanical laws expressible in simple mathematical equations." To this end instruments of precision are absolute requirements. The period in the world's history during which the greatest relative progress has been made in science extends over a comparatively brief interval and coincides with the period in which instruments of accuracy and precision have been invented and used in experiments and exact measurements. In the brief span of a few hundred years more has been learned in the way of definite knowledge than in all the half-hundred centuries that preceded them. Industrial inventions, mechanical appliances and instruments of precision, underlie all modern scientific progress. They have made exact knowledge possible. Chief among them is the microscope. By means of it we have been able to establish, verify, and reduce to a mathematical certainty much of that vast body of classified knowledge known as science, and the ability properly to use this instrument marks genuine progress in the precise methods of modern research.

IV. It trains the pupil to discriminate between what is and what seems.—This lies at the basis of all training in science and leads to the higher processes of thought; comparison, abstraction, generalization, and critical definition. Isolated facts are of little value. It is only when they stand in their proper relation to each other, when each assumes its proper place in a chain of experiences, that it flashes into full significance. The adolescent has a tendency to overconfidence, to undue egoism, a state of mind that the critical study of nature is sure to relieve. Emerson may mean one thing to this student, another to that, and each with an apparently equal degree of certainty. A certain event in history may admit of several interpretations and each may appear equally worthy of credence. Critical scientific training eliminates that trait of mind that leads to undue confidence in a mere opinion and to this end the proper use of the microscope contributes a large share. With it

the student works his way from the known to the unknown; candidly ignorant; frankly teachable; critically exact; the attitude of mind that led Kepler to outline seventeen different hypotheses and seventeen different sets of laboratory observations and computations before he was ready to announce to the world that he had discovered the "shape of the path of the planet."

II. THE PURPOSE OF THE MICROSCOPE

J. B. LILLARD, TEACHER OF BIOLOGY, WILLIAM MCKINLEY HIGH SCHOOL, ST. LOUIS, MO.

One who has taught nature-study in the grades, biology in the high school and the university, and has worked with candidates for advanced degrees in the subject, sees the value of the microscope varying from zero to one hundred. In the grades, where the work is mainly extensive, its use is hardly to be thought of. Possibly in the last two years of the high school and surely in the university, its use is all-important. In the last instance biology would be a farce without it. But in most of the high schools of this country zoölogy, botany, and human physiology are presented in the first two years of the course.

The purpose of the microscope whenever used is obvious. Our high schools are not for the purpose of training pupils to become experts in the use of microscopes. I say this fully realizing that it has revealed a great body of biological facts, and that even those facts and principles which are not the direct result of microscopic study are nevertheless intimately linked and fused with the revelations of the lenses. I realize, too, that microscopic study is distinctly a biological method. In any scientific study the methods of the science are of great value. In some cases they surpass in value even the facts and principles of the subject itself. The omission of microscopic observation, when the child is mentally ready for it, would find a parallel in the study of chemistry by totally disregarding qualitative tests or by completely eliminating the use of balances.

In the first two years of the high-school course we are dealing with children. We must employ many means of approaching the subject. We must take into account the child's experiences and previous preparation. Dissections, models of whatever kind, physiological demonstration, experiment, and observation, fieldwork, textbooks, illustrations, figures, lantern slides, lectures, recitations, question boxes, microscopes—simple, dissective, and compound—and what not, may all be used to advantage. But in every case it must be remembered that each of these and perhaps many other devices are simply means to an end in the study of life. Not one of them should be used for its own sake, but only as a tool absolutely subservient to the needs of the course.

I have seen the energy, time, and enthusiasm of a class dissipated in the search for something that could not be found. On the other hand, I have seen the indifference of the same class suddenly transformed into intense eagerness as soon as a little obstruction had been removed by a single glance thru the eyepiece of a microscope.

The purpose of the microscope is to reveal what is essential to a clearer understanding of the subject. Whenever it becomes necessary to complete a chain in the development of a subject by supplying the microscopic link, then use it. This link will be pluralized (if I may coin the expression) as we go from the first to the fourth years in the course because the character of the work will necessarily change as the pupil develops. But the "big eye" as it is termed in college slang, must lead us out of chaos not into it; it must be a helper, not a burden; it must be looked thru and not at. In a word it must be a means and not an end.

THE USE OF THE MICROSCOPE

Assuming that biology is given in the first two years of the course (and my high-school experience in the subject has been limited to this), I am compelled to discourage a wholesale use of the instrument.

Pupils entering from the grammar schools find difficulty in orienting themselves for reasons obvious enough to one who has had any practical experience in secondary-school work. Taking it for granted that the pupil has learned how to manipulate the instrument and that there is plenty of time for the purpose, he may grope about for hours, yes even days, in the vain endeavor to find anything. I have spent a great deal of time showing the pupil what I wanted him to observe only to discover later that he had wasted much valuable time on a bubble. It is a pedagogical crime to presume that the Agassiz method can ever be used on a child at work over the microscope. It is my honest opinion that it would be disastrous even in the senior year of the high school. However, this has not been verified by experience. Very few first- or second-year pupils have the power of sorting out the essential details. If the teacher finds it is possible he can always handle the exceptional case. If the teacher is alive to the situation and employs the individual method as we do in the McKinley High School, this exceptional case will in no way disconcert him.

Referring again to the inability of the average, yes, even the vast majority, of our first- and second-year pupils to sort out essential details, I would say that even as grown-ups we form a mental picture and draw an interpretation rather than an accurate representation of the things we are studying.

I have found that manual-training pupils have some advantages over their fellows in seeing fractional values. But this advantage is after all only slight. And, as yet, how many actually get it? Nothing short of abnormal precocity can put a grown-up's head on a child's body.

Whenever the microscope is used the objects to be observed should be such as can be seen clearly. Much care must be used in selecting material that is not confusing. The idea that the real thing must be seen to be fully understood is good both in theory and in practice but to see the real thing, to see it as it is, and to see it in its proper relations is no easy task. When the boy or girl looks thru the eyepiece of a compound microscope he is looking into a new world. It is much more difficult than looking thru a telescope at the moon. It is much farther removed from his experience; and readjustment and reconstruction are much more difficult.

The projection microscope may be used to some advantage. Yet here again we are confronted with two handicaps: first, detail is generally eliminated; second, demonstration of minute structures is quite out of the question.

I have found the lantern to be one of the most important aids in presenting biological work to high-school pupils. The pictures are generally diagrammatic and interpretive; all unnecessary and confusing material is eliminated, and the pupil sees what is essential.

Now, all that I have said refers mainly to the anatomical side of biology, for reasons obvious enough. But I want to emphasize my belief that the physiological side has been shamefully neglected both in zoölogy and botany; yes, and strange as it may appear, even in human physiology.

To recapitulate: The importance of the microscope will depend very largely on the position of biology in the high-school curriculum, that is, whether it is offered in the first, second, third, or fourth year of the course; that whenever employed, whether in zoölogy, botany, human physiology, or whether in that phase of both the last two, known as bacteriology, it is to be used only when necessary to supply an absolutely essential link in the chain of development. I believe it is indispensable for the most effective teaching, but that the extent to which it may be used must depend on the mental development of the pupil; that it is, after all, only one of the many ways we have of giving the student a glimpse at the most wonderful thing in the world-life and of acquainting him with the most important contribution of modern biology to the philosophy of life—organic evolution.

III. THE KINDS OF MICROSCOPE WORK VALUABLE FOR HIGH-SCHOOL STUDENTS

H. F. WEGENER, PRINCIPAL HIGH SCHOOL, TACOMA, WASH.

The history of the development of the microscope as an instrument of investigation is so closely related to the history of the growth of the biological sciences that, in order to understand the latter, we are obliged to make ourselves familiar with the former. The improvements in the one made possible the discoveries in the other.

Of all instruments for scientific research none has such an interesting history as that of the microscope. If we compare the simple magnifiers used in the sixteenth century with the complex instruments of today, what a wonderful change has it undergone.

With its gradual approach to perfection there was a corresponding expansion of its field of application, until today there is no other instrument of investigation that can approach it in the variety and extent of its uses.

So greatly have these been multiplied that it is difficult to name an industry or field of research in which some form of the microscope is not used.

A period of nearly 150 years intervened between the beginning of the use of the simple convex lens and the evolution of the achromatic objective. It was not until 1830 that the modern objective, in its cruder form, first began to be used. All we know about the minute structure of living organisms has been learned since that time.

It is true Lieuwenhoeck made some remarkable observations with his little globules of glass a hundred years ago and thereby drew the attention of the curious to the study of minute objects. His discoveries gave the stimulus and incentive to others and indirectly to efforts to make improvements in the instrument itself.

In this way many isolated facts were collected but no attempt to correlate this knowledge and make it a basis for scientific investigation was made until twenty years after the achromatic objective had been invented.

There was a time, in the memory of many of us, when the microscope was looked upon as merely a kind of scientific toy. Many persons interested in objects of nature and of an inquisitive turn of mind bought microscopes. For their benefit books were published bearing such titles as the following: *Evenings with the Microscope*, *The Wonders of the Microscope*, *The Microscope and Its Revelation*, etc.

Societies were organized in which eligibility to membership consisted in the ownership of a microscope. A national organization, called the American Society of Microscopists, was formed. This society existed for a number of years and was finally merged as a section with the American Association for the Advance of Science. A similar society, but of much earlier organization and counting among its members many men of great scientific attainments, was formed in England and called the Royal Microscopical Society.

A great deal of the knowledge thus obtained was not of a scientific character. It was merely a collection of facts about objects which could not be seen by the unaided eye. They were interesting, because they were new and because they appealed to the curiosity of the observer. This sort of study had its value, however, for subsequent scientific purposes, for the students learned and discovered many facts concerning the technic of preparation of objects for microscopic study. Many of these men became experts in the manipulation of the instrument and what they thus learned later on greatly aided the scientists in their work of investigation.

A large body of facts drawn from the realm of nature had thus been accumulated before any serious attempt was made to organize this knowledge and make use of it in the pursuit of further scientific investigations directed in particular lines of research.

The introduction of the microscope as an instrument of research in high-school science in this country had its beginning with the appearance of the American edition of Huxley's *Elements of Biology* in 1877.

Previous to this time the use of the compound microscope was deemed impracticable

for the reason that high-school students were too young to learn to manipulate the instrument. As evidence of the feeling, I need but refer to the preface in Gray's *Textbook of Botany*, in which this is given as a reason why the study of the Cryptogams is omitted from this book. On account of Professor Gray's position as a botanist in this country, his dictum was received without question, and for ten years longer few attempts were made to extend the study of botany in high schools to the lower forms of plant life.

The appearance of Sach's *Textbook of Botany* in 1884 with its new classifications of plant forms and the broader view it gave by including structure and function as essential to a correct understanding of plant life, made the use of the microscope necessary.

Teachers began to learn that the difficulties in the manipulation of the instrument were not so great but that students of high-school age, with a little instruction and practice, could do profitable work. A similar change took place in our method of teaching zoölogy. The new science, introduced by Huxley under the name of biology covering both fields, was now given a place in the high-school curriculum.

With this brief historical sketch of the evolution of the microscope and its gradual application in scientific investigation, we are brought to the time when the modern laboratory methods of teaching the biological sciences in our high schools had their beginning.

In describing the kinds and amounts of microscopic work valuable for high-school students, I shall confine myself largely to my own experience in teaching. I do not pretend to say that these are all the applications of the microscope that can be made in teaching the subjects that I shall mention, but that they are such as I have found by experience to be possible and valuable.

The fundamental fact that, in all our studies of living organisms, should constantly be born in mind is this, that no matter how great the variety of form and structure of the organs which make up the individual as a whole, the life of the individual is the sum of the life activities of all the cells. The more we know of an organism the better we are able to understand its various activities and the conditions under which it can live and grow and multiply.

Since it is impossible, on account of the time limit that is set to the various subjects that are presented for study in a high-school course, to study many forms of plant and animal life, it becomes necessary to chōose for our study such forms as best represent the typical structures of the different classes. There may be some difference of opinion among teachers as to what are the best types. Then, again, there is also the matter of availability of material. It is not always easy to find the best types in the vicinity in which you happen to live and you are therefore compelled to choose some related type as the material for study.

The examples which I shall give, which require the use of the microscope, lay no claim to logical order of study but are merely given as illustrations of what may be done profitably by high-school students.

Beginning with the plant world, I would choose, on account of its simple structure, its large transparent cells, and its abundance in all ponds and slow flowing streams, the *alga spirogyra*. It lends itself as an interesting study of the phenomenon of cell growth and cell division, of the properties of chlorophyll, of starch production, of conjugation, and spore formation.

In Vaucheria, another one of the algae, we see a different but simpler structure with a form or reproduction resembling that of higher plants. As an example of a unicellular plant, the protococcus gives us a view of multiplication by simple cell division with a motile stage.

A study of the fungi is valuable on account of their practical relation to household economy. A knowledge of their growth and reproduction gives the housewife an intelligent insight and reason for the various means she uses for preserving fruit. The common green mold, *penicillium glaucum*, and the white mold, mucor mucedo, are the best subjects for this study.

Another plant whose product profoundly affects the welfare of man, is yeast. From its study we learn that it is a plant because it has the power of constructing protein from inorganic substances, that it multiplies by budding or gemmation, that it is killed by heat, that it is the cause of fermentation in all liquids containing sugar, by decomposing the latter and that the product of this decomposition is alcohol. It has a practical value for the housewife in that it teaches her the secret of bread-making.

The liverworts, mosses, and ferns should receive attention because in these three classes of plants we are introduced, besides difference in structure, to a feature in plant reproduction known as alternation of generation. Its two distinct sexual organs, the archegonia and antheridia, differing in form and very unlike the same organs in flowering plants.

The lichens, so frequently called mosses, deserve notice not only on account of their wide distribution in nature but as an illustration of that singular phenomenon called symbiosis in which an alga and a fungus keep house together and form a single organism.

In this connection, the historical fact may be mentioned that for 300 years the true character of a lichen remained a puzzle to botanists until the riddle was solved by the studies of Bornet in 1860.

The use of the microscope is essential in the study of the histology of the spermatophytes and the organs of reproduction, such as the stamens and the formation of the pollen, the stigma, style, and ovary with its contents. The function of the leaf as determined by its structure, its epidermal cells, its stomata with their guard cells and their relation to the respiration of the plant; the intercellular spaces, the mesophyll with its chloroplasts and other products.

The structure of the stem with its fibro-vascular bundles, its bast fibers, and sieve tubes. The difference in structure of the Monocotyledonous and Dicotyledonous stem.

The structure of the root, with its rhizoids and their cells and the osmotic action of the inclosed protoplasm.

In zoölogy, we need the use of the microscope in the study of all the unicellular organisms and in the histology and minute structure of the organs of the more highly organized animals.

I know of no better organism with which to begin this subject than the amoeba. We have here a bit of protoplasm exhibiting all the manifestations of a living being in its simplest form, contractility, irritability, and the whole series of processes included under the term of metabolism.

This study has another value for those who subsequently take a course in human physiology for it makes clear to them the peculiar function of the leucocytes of the blood acting as phagocytes.

Their amoebid character and their mode of injestion can only be understood by recalling to mind the study of the amoeba. Other unicellular organisms such as the vorticella and paramoecium, should follow to show differentiation of cell wall for special purposes.

The simple multicellular hydra, the fresh water sponge, the insect with its mouth parts, its nervous system, its spiracles and tracheae, the minute anatomy of the higher animals such as the clam, the earthworm and the crayfish, all require the aid of the microscope to understand their structure.

In the study of the human body the function of many of the organs can only be understood by careful study of their finer structure. For this purpose, carefully prepared sections of the human skin, to show sweat and sebaceous glands, and sections of the small intestines to show the villi, should be studied.

Ciliated cells of the air passage should be seen in order to show their relations to dust in breathing. The function of the kidneys is made clear by observing the structure of the glomeruli and Henle's loops. The double character of the muscle fibers of the heart, and the structure of voluntary and involuntary muscle fibers should receive attention.

The circulation of the blood through the capillaries cannot be understood until your pupils see it in the web of the frog's foot or the tail of a small fish.

It is only by studying a thin section of a bone that we can realize that it is not a hard compact body and that its growth and nutrition depends upon its porosity and the flow of the blood and lymph through it.

Nerve cells and nerve fibers, sections of the retina, the composition of the blood, the characteristic structure of lung tissue, of hair and finger nails, of epidermal cells, etc., all afford valuable and interesting information.

With these examples as illustrations I believe I have sufficiently indicated the character and scope of the work that can be done by high-school students in the study of the natural sciences that are usually included in the curricula of secondary schools.

Another subject that has not yet been accorded a place in such a curriculum but which, on account of the wonderful advances that have been made in it and also for the reason that a great deal of ignorance and error prevail in the public mind regarding the nature of the organisms which have been the subject of these investigations, should receive attention is bacteriology. I know that I am venturing upon debatable ground when I broach this subject but I feel that no more practical information than a course of this kind can furnish our pupils can be found.

The labors of Pasteur, Koch, Bering, and a host of other investigators, have established, beyond a doubt, that nearly all infectious diseases are due to bacteria. It is further a well-ascertained fact that bacteria are living organisms and therefore subject to such limitations as food, temperature, light, and moisture. Every bacterium is the offspring of a pre-existing one, no matter how favorable the conditions for its growth and development are. No disease germ can come into existence without a progenitor. Filth and dirt cannot breed disease germs before a germ has been planted in them. But all bacteria are not harmful, the fact is that only a few of them are really dangerous to health. However their distribution in nature is so universal and they enter into our household economy at so many points that a knowledge of their nature, the conditions under which they live, their growth, and the means that can be used to counteract them should be in the possession of every intelligent person.

Now, I take it that it is the function of the high school to prepare the students for practical life, to put them in possession of all those facts that shall enable them to protect themselves against agencies that may handicap their usefulness, not only in the community in which they live, but also themselves and their families. Good health is essential to our happiness and well-being and depends largely upon wholesome food.

We know that all putrefactive fermentation is the result of bacterial activity and that bacteria are the chief source of the changes that make food deleterious to health.

It is said that seeing is believing and that nothing so effectively impresses itself upon our mind than an ocular demonstration.

By the aid of a properly prepared culture medium, a number of experiments can be made before the class that will not only be highly interesting and instructive but will also put in the possession of the pupil a knowledge of the character of bacteria and their work in the economy of nature that cannot fail to be of great value to him in after life.

As an illustration, I will briefly state some of the facts that can thus be learned. The student can be shown that bacteria are in the air everywhere, that dust is the means of spreading them. That they are found in ice and that this is therefore a source of danger in drinking-water and iced tea.

Milk is especially favorable to their growth and hence can be readily infected with disease germs.

The success in modern surgery depends wholly upon the care of the surgeon in excluding them from open wounds. It is a well-known fact that touching an open wound with dirty fingers or even picking a pimple with an unclean pin has been the cause of blood-poisoning.

It can be shown that the common house fly may be the cause of spreading an infectious disease such as typhoid fever and consumption by coming in contact with our food.

Bacteria are found in the saliva and on our teeth thus causing their decay.

The whole process of sterilizing can be made clear and practically illustrated. The nature of disinfectants and how they affect disease germs, the effect of boiling, of freezing, and of light, all can be demonstrated by experiments.

These examples, which can be greatly multiplied, seem to me are a sufficient justification of my plea for a course of practical bacteriology to be given with every course in human physiology in the high school. That the knowledge thus gained is of great practical value cannot be denied. That it can be done has been proved by the experience of those who have undertaken it.

IV. MISCROSCOPIC PROJECTION IN BIOLOGY

C. T. WRIGHT, DEPARTMENT OF PHYSICAL GEOGRAPHY, HIGH SCHOOL, REDLANDS, CAL.

Equipment—

College bench lantern with right-angle arc.

Four condensing lenses 6½″, 7″, 7½″, 9″ focal lengths.

Water-tank to intercept heat.

Microscope stage with micrometer stage attachment for fine focus, three objectives, 1¾″, 1″, and ⅛″, two concave lenses for amplifiers, and substage condenser for high-power illumination.

Smooth white plaster for permanent screen.

Semi-transparent screen of tracing cloth mounted on a frame.

Drawing-board and crayons.

Slides, microtome, stains, etc., for temporary slides.

Operation—

(1) Project the object with rather low power to get general outlines and to locate part of special interest.

(2) Use higher power for details, using substage condenser for strong illumination and micrometer stage attachment for fine focus. A field glass or opera glass previously focussed on the screen is useful. For close study of details with high power use screen of tracing cloth, students grouped close on both sides.

(3) Substitute drawing-board for screen and trace the part that is to be reproduced in notebooks. This may be done in the light while students are working on other things by surrounding the drawing-board by a large box painted black on the inside.

(4) Measurements are made by using a black piece of an old negative, cut to the size of a slide on which millimeter and fractional millimeter lines have been scratched by a needle mounted on the microtome. The length of a millimeter is indicated by an arrow on each tracing and also its length in millimeters which is the magnifying power.

After the student has made his drawing to any convenient size he measures it in millimeters and using it as the numerator and the length of tracing as denominator he multiplies this fraction into the power indicated on the tracing and indicates this result as the actual magnifying power of his drawing.

Advantages—

(1) One microscopic attachment and one extra microscope for teacher's use is sufficient for the whole class.

(2) One slide of each subject and all working on the same thing at once instead of as many sets of slides as there are students in the class, or each student on a different topic.

(3) No eye strain.

(4) No time wasted studying air bubbles and unessential parts.

(5) The subject can be thoroly demonstrated before the class before the student begins his work on it.

(6) Teacher is sure that he and the pupil both see and discuss the same thing.

THE RELATION OF HIGH SCHOOLS TO INDUSTRIAL LIFE

E. W. LYTTLE, INSPECTOR, NEW YORK EDUCATION DEPARTMENT, ALBANY, N. Y.

The West is large; so is our topic. The industries that have created the West and the interest of the West in schools have no parallels in history. Therefore our topic needs not to apologize for its presence.

Enrolling 1 per cent. of the total population, employing upwards of 36,000 of the most skilled, tho not of the most learned of our teachers, costing in public support, in the private maintenance of pupils, and in the withdrawal of pupils from the industrial activity, about $200,000,000 annually, secondary education in the United States appears already to occupy no small place in our industrial life.

Moreover, the high-school industry is a growing one. Between 1890 and 1904 public high schools and high-school enrolment each increased over threefold. This increase was unusually large because of the rapid conversion of academies into public high schools, and recently has been checked by the unusual demands of business and a high wage scale; yet the report of the commissioner of education for 1904 shows an annual increase of over 5 per cent. of high-school enrolment. Today over 86 per cent. of these secondary pupils are in public high schools.

If one may find the prophecy in present tendencies, it is safe to say that as soon as the high school can be more perfectly adjusted to life thru the adoption of better courses of study and better methods thru the establishment of evening high schools and continuation courses, 5 or 6 per cent. of our population will be enrolled in secondary schools.

It has been intimated that our high schools are imperfectly adjusted to life. Wherever high-school courses are planned almost exclusively for the one-third of the graduates who prepare for college, and ignore the claims of the other two-thirds, that criticism will have value tho it is less valid than a materialistic age and a commercial spirit conceive it to be.

As high-school principals, we must crave the indulgence of the public for a while yet. We have been so busy growing that we have had little time for careful adjustments. Moreover, from the beginning, the public high school has been the football of the educator politician and of the college professor whose little German is a dangerous thing. Without collusion or mutual agreement, these two have been kicking toward the same goal. Each would make the high school a university, the one by enlarging the curriculum to include everything useful, the other by insisting that everything useful shall be taught in a perfectly useless way. Apparently neither has comprehended the educational axiom of the great apostle to the gentiles, "When I was a child, I spake as a child, I thought as a child, I understood as a child." Under the stimulating efforts of these two friends, our educational system has so increased in stature that it appears today like an overgrown schoolboy whose trousers and waistcoat have parted company by several inches.

Our secondary teachers have been so isolated in their work, they have had to teach so many things in so many different ways, that they have had little opportunity for co-operation or for reflection. It would be interesting to know just what per cent. of our high-school principals, even in the wildest flights of imagination, ever planned a course of study from the view-point of the needs of their student body.

Today the three greatest industrial interests, commercial, manufacturing, and agricultural demand a share of attention from the high school. Their demands are not only just, but they have a compelling power behind them. Properly heeded, these demands may save the high school from becoming a caste school. Lacking proper control, these same demands will despoil the high school of all that is best in it; for it still needs believing more than ever that "the life is more than meat." The high school is a large part of our industrial life, but it is something far more. It is a large part of our political life. It was no accident that Andrew Jackson and Horace Mann were contemporaries. Neither was that second revival of educational activity which followed the Civil War an accident. Future historians may find it profitable to turn aside from wars and treaties and congresses long enough to note some of the less obvious but more vital factors of a great nation's growth. Some day it may not seem presumptuous to claim that our public-school system is as much blood, bone, and sinew of the Republic as if it were recognized in the written constitution. If our present presumption is not really presumption, then, in future, college influence may not crowd out history to enlarge the boundaries of linguistic studies.

The high school is also a large part of our social life. The rapid growth of the free high school is due in largest measure to the desire for social uplift. If there is any one thing that marks the difference between the secondary school in America and the secondary school in Europe, it is the wholesome social spirit of the American high school. In our small cities and villages, especially, the high school has become a center of social interest second to none.

The social aim of the high school is thought by many to be the creation of an aristocracy. Yes, but of such an aristocracy as the world has never seen. Its aim is not and must not be the creation of an aristocracy of culture. That were little better than an aristocracy of birth or an aristocracy of wealth. Founded on a democracy of labor, the high school can only aim at an aristocracy of service.

Again, the high school is and must be a preparatory school for institutions of higher learning. It needs the college and the university above it, as the tree needs leafage and fruit. There are enrolled in colleges, universities, and professional schools of all sorts, nearly one-third as many students as are in our high schools. The high school is, therefore, bound to the college by ties that it could not sever if it would. But while the more thoughtful college instructors are everywhere recognizing the general truth that the high school is entitled to its own view-points and must meet its own psychological neces-

sities, practically thru textbooks, thru syllabi, thru entrance examinations, and thru instructions given in summer schools, these same college professors or their colleagues are trying to clothe David in Saul's armor.

Without going into details, we wish, for instance, to teach science as it should be taught to high-school pupils, and we direct attention to the painful fact, that, while the utilities of science have been greatly multiplied in our daily life during the last ten years, the study of science in our high schools has steadily decreased and is decreasing.

Decry informational study as we may, it still has a place and no small place in the high school. The technical school may be content to send out well-qualified architects who say that the Romans knew little about architecture; the college of liberal arts may send out excellent teachers of English who say that iron rust is a vegetable growth; but the high school should not be satisfied with any such products.

Many of the difficulties that beset the makers of high-school curricula are due to the fact that the high school should be at the same time a school of integration and a school of differentiation. As a political and as a social organism, as a school of general culture, the high school like the elementary school must seek a product more or less uniform. It must aim to make well-informed, honest citizens, and capable, industrious, and moral men. But in its relations to industry, the great work of the high school must be differentiation. It must send the scholar to college, the mechanic to the shop, the merchant to the store, the farmer to the field. The large cities can differentiate their high schools and some have done so. That is an easy and a cheap solution of the problem. It shifts responsibility from the school to the parent. It may be questioned whether such a solution is a wise one even in the largest cities. In small cities and in villages, such solution is impossible.

Heretofore many schools have made a serious mistake in trying to differentiate too soon, thereby cheapening and materializing high-school education; but the greater number of high schools at present are making the mistake of permitting themselves to be simply a sieve to separate the scholarly from the non-scholarly.

From the magnitude of its work, it must appear even to the amateur, that the high school needs more than four years to properly accomplish its purposes.

What about the cost of all this education? pertinently asks the tax payer. It may become too great a burden. Probably it will become too burdensome for public support and private philanthropy combined. That might be no calamity for the high school. If a way were found to engage high-school pupils for a part of the day in productive industry and for a part of the day in school, it is not improbable that both scholarship and industry would be greatly benefited. At any rate, indications are not wanting that thoughtful men are working out a solution of these possible difficulties.

THE MEANING AND FUNCTION OF MANUAL TRAINING

J. STANLEY BROWN, SUPERINTENDENT OF TOWNSHIP HIGH SCHOOL, JOLIET, ILL.

History records the fact that John Locke, whose life was comprehended between 1632 and 1704, did not believe in public education, nor in a public school; but he was the first to advocate manual training, and that for children of the laboring classes of England. The subject had small meaning then and it has waited more than a century and a half before it could begin to show something of its meaning and its function. Because the subject is somewhat undeveloped and in a condition of progression, no mere definition made today would contain all the truth tomorrow. The meaning, however, is growing in extension, and has, we think, passed the stage of development when it is often referred to as a fad.

The performance of laboratory experiments requiring careful and accurate manipulation of apparatus is manual training. The making of maps, the making of models, drawings, the manipulation of the typewriter, etc., are in the broad sense manual training. In the narrower sense you must not speak of manual training unless you have in mind the shop, the forge, the lathe, the chisel, the hammer, the plane, the saw, etc. It is perhaps unfortunate that to such work is applied handtraining because the hand does not perform its function, nor does it act at all except in response to the power behind the hand; and so manual training becomes mind training, and unless this is so and continues to be true, manual training has lost its chief function.

What does manual training mean? It means that we have one more avenue thru which to make an appeal to the boy and girl whom we have failed to reach by other means. It means that the budding power of a superintendent of construction, or some kind of engineer, may begin to unfold in the child while in the elementary school. It means that for hundreds the life's plan and purpose are determined by touching the mainspring of the child's or youth's chief interest. It means that the boy of mechanical turn does not leave the school, play truant in order to go into a shop or factory to see how things are made. It means that the boy or girl gets a broader, more practical notion of the value of personal service. It means the awakening of the boy to possibilities of a technical education, and of the girl to the possibilities of and the completest meaning of domestic science and household arts. It means a physical exercise accompanied by hard thinking and reasoning with concrete things. It means that the recipient becomes a former of things. Horace Mann says that "for all that grows, one former is worth one hundred reformers." If manual training were systematically taught in all public schools thruout the course, we would soon see the number of reform institutions for boys and girls reduced, truancy would very largely disappear, and we would observe both a moral and intellectual uplift.

Manual training is not all of education, nor can anyone be completely educated by pursuing this subject only. This is only one phase of education

and will, of course, receive great emphasis at the hands of its ardent devotees. If education is the life which fits for complete living, education itself must be complete, not segmental, not fragmentary.

It is estimated that more than three-fourths of the American people earn their living by some kind of hand labor. If we maintain, then, that all people should be self-supporting, it is plainly one function of manual training to make the citizen self-supporting. We say that about the only democratic institution left in America is the public school. Manual training will increase the democratic principle by lending dignity to manual toil. When this work is properly presented, we find the son whose parents dwell beside the asphalt and the other son whose parents live just outside the factory gate, interested in the same piece of work, wearing the same kind of working equipment. The air of American democracy pervades the room and it is certain that the aristocrat would soon be stifled if he attempted to change the condition.

We have boasted in the presence of foreign representatives that we have no caste system, no classes, no titled aristocracy in America; but we cannot continue to so speak for an indefinite period unless we train to the highest point of efficiency the 80 per cent. who earn their living by toil with hand and brain. We must extend the number of phases of education, the number of lines of work likely to appeal to different young men and women, thereby increasing to the highest point their life's efficiency.

All boys and girls, if properly studied by parents and teachers, will exhibit a preference for some particular line of work, and it ought to be the exalted privilege of teachers in our secondary schools to assist the boys and girls in determining what they can best do as their life's work. The boys' bent cannot be known by reading or talking about something; it cannot be determined by the study of the lives of great men and women, no matter how valuable such a study may be. It must be determined very largely by the boy himself when he is brought into close personal contact with the different lines of interest represented in our different phases of education.

The mill, the shop, the factory, the counting house, the office, etc., all make their appeal to the youth, but only one will touch the mainspring of the boy's life and that not until some phase of education has opened up the mind of the boy so that he realizes the significance of the associations of mill, shop, factory, lawyer's office, or physician's office. Life now means a single, definite purpose, and if manual training never does anything more for the youth than to act as one of the agencies in helping him to know his bent in life, the name of Locke and all his successors who have in any way contributed to this cause ought to be forever held in sacred memory.

All the subjects of the curriculum may be roughly divided into two classes; the one is the progressively living studies, the other is the retrogressively dying studies; the one is invited to the front, leads the van, and finds its defense in the ever-increasing demands for its enlargement; the other is relegated to the rear, brings up the procession, but with little enthusiasm. Manual training

belongs to the first class, is daily increasing its defenders, and is rapidly taking a position of domination.

Manual training came to America by way of protest against the one course of study for all, regardless of past, present, or future condition or expectation, and was preceded and followed by other phases of education, each seeking to meet the needs of the individual. This has been done, but in the doing it has been found impossible to have students take all the work offered, as in the earlier time. and so, in response to a demand to meet this condition, the elective system was introduced, at first sparingly but latterly in large measure in both the school and the college. The claims of the individual have been recognized, and because of this and other things which have come with the elective system, specialization has necessarily been moved down to the point where free election begins.

The course in agriculture, the industrial course, and the commercial course, have all made their contributions to the fund of knowledge enabling the youth to choose wisely his work and according to his greatest interest, but no study has made such great contribution in the solution of this problem as has manual training.

For many the solution of the ever-troublesome question of interest is found in manual training, and not only so, for many have magnified many times their interest in all their other work because of that particular interest created in manual training.

My observation and experience show that many students do better work carrying sixteen hours' work, with four additional hours in manual training, than they do if they omit the four hours' work in manual training.

The youth can never have complete education unless the mainsprings of his life are touched and thereby made to respond in the process of growth. Growth begins not in stagnation but in activity. Manual training furnishes an indispensable part in any complete education, because body, mind, and soul are affected directly or indirectly by manual training when properly presented. Hand and brain, muscle and intellect, body and mind cannot be trained as distinct and independent entities, altho it is conceded that one of these pairs may be affected in a maximum degree, and the other at the same time in a minimum degree. Manual training will contribute its legitimate and indispensable share to a symmetrical development of the individual and to a harmonious growth of the body and all the mental faculties.

This harmony and symmetry need not be, and in very rare cases will be, a life continuity, but we are having in mind, in this discussion of the place and value of manual training, the youth about twelve or thirteen years old who has done six years of well-planned work as a child in the elementary school, and is now beginning his next six years of work in his youth stage of the secondary school. We are gradually and sometimes, I think, unconsciously reducing the number of years of preparation, preceding specialization.

If this is true it is because the increase in the number of fields or phases

of education has enabled pupils, parents, and teachers by co-operative effort to determine earlier the bent of the student.

We often fail to reckon with heredity in assigning or advising a student to do manual-training work. If the youth's antecedents for generations have been intimately connected with machine or shop or mill, the slumbering talent may never be aroused and cultivated unless some phase of education is forthcoming which will best and soonest bring out this talent.

Many a first-class machinist has been utterly ruined by the advice of some one to enter the profession of law or medicine. Far better have in society a good carpenter, a good molder, a good mason, a good machinist, with a good general education extending to the middle of the secondary school period, than to turn loose on society one more quack, one more shyster, and one more Ichabod Crane. Manual training is exceedingly valuable in helping to determine what is the line of greatest usefulness for the young man and young woman.

The variety of manual training may be selected to fit the particular needs of the community, i. e., if the town and the people at large are devoted mainly to industries requiring a knowledge of wood-working, the course in manual training may be planned with especial reference to this dominant industry. This local flavor is of practical benefit but it must not dominate the course-maker of the school.

The making of useful things at all stages of the work is more important than shaping the work to meet the particular demands of the locality. The making of useful things has much to do with the making of men, and all education in sympathy with, and out of sympathy with, manual training must sooner or later admit this fact and arrange their courses of study accordingly.

The word "service" contains the quintessence of the newest and best education. Manual training very largely performs its function and manifests its broadest meaning in training most directly for real everyday service.

We have attempted to show that manual training originated in the mind of John Locke, who was opposed to any kind of public school, but thought the children of the laboring classes might be benefited by manual training. The subject today has passed the fad stage and is among those subjects whose content changes rapidly because they are continuously progressive.

The meaning and function of manual training are growing broader as better understanding of the child mind is shown. It is estimated that more than three-fourths of the American people earn their living by doing work with their hands. If we maintain that the ideal citizen should be self-supporting, it is clear that manual training ought to be found and given a prominent place in public education.

Horace Mann said that for all that grows one former of things is worth one hundred reformers. Manual training means that one great field of education appealing especially to the mechanically inclined must be cultivated. It means that one more broad avenue of approach to the youth is open to the

teacher. It means one more line of work toward perpetuating a true democratic spirit in public education.

No life ever reaches its upward limit of usefulness unless early in its growth some well-defined work, suited to that life, is marked out to be done. Concentration counts for more than dissipation of energy.

Manual training performs one of its greatest functions in assisting the youth to determine what is his work and thereby makes a great contribution to human happiness.

MANUAL TRAINING IN RURAL SCHOOLS OF INDIANA

ELLSWORTH ROBEY, SUPERINTENDENT OF COUNTY SCHOOLS, KOKOMO, IND.

Indiana is consolidating its schools and transporting the children. I believe that the commercial side must be touched in the schools. Of two farmers living next to each other one who has been using every opportunity for informing himself regarding the principles of agriculture raised last year ninety bushels of corn per acre; the other forty-eight bushels per acre. They had similar soil and similar conditions generally. This simply indicates what study will do. Corn clubs have been formed by the boys in rural schools. In a certain county each boy in a club of one hundred twenty-five raised one acre of corn, one boy obtained 117 bushels from his acre, the lowest obtained 50 bushels, the average for the entire club was 72 bushels per acre, the average for the farmers of the same county was 37½ bushels per acre. Of course each boy put a large amount of energy into that one acre of ground; but that points a most valuable principle, farmers must soon learn to get the same crop from half the land.

In these clubs boys are taught what constitutes a good ear of corn. They learn to test seed. Most of the work is done out of school. It is being carried into high school in some places. By means of this work we are holding more boys on the farm. Of course, some ought to go to the city; but many would remain on the farm if their eyes were opened to the possibilities of the farm. In the case of one boy who has carried on an experimental plot of ground on his father's farm, the boy has been sought for as a speaker at farmers' institutes and his letters to the press are valuable and are read with interest. He will certainly become a proficient agriculturist.

Domestic science for the girls is found in some high schools and even in rural schools. County farmers' institutes take up domestic science work at their sessions.

REPORT OF THE COMMITTEE ON AN EQUAL DIVISION OF THE TWELVE YEARS IN THE PUBLIC SCHOOLS BETWEEN THE DISTRICT AND HIGH SCHOOLS

BY GILBERT B. MORRISON, PRINCIPAL OF WILLIAM MCKINLEY HIGH SCHOOL, ST. LOUIS, MO., CHAIRMAN.

The question of dividing the twelve years of the public-school course equally between the primary and secondary schools, giving six years to each, presents a twofold aspect: the first is educational or pedagogic; the second is economic. In the consideration of the

first, the educational, it is pertinent to ask what would be the gain or loss to the pupils if the time that now occupies them in the seventh and eighth grades in the primary schools were employed in a school using secondary-school methods, that is, in a high school in which the course and work would be extended downward and adapted to meet the needs of children two years younger than those formerly admitted.

In approaching the pedagogic side of this question, we would first call attention to two distinct phases in the process of learning. These may be called *symbolic*, or the acquisition of the symbols of thought, and *substantial*, or the exercise of thought processes that employ objects of the physical world, showing their properties and relations to one another, and that also employ human experience in its relations to the physical world and in the social relations which exist between individuals. There is a growing belief that the schools of the past have drifted too far toward the purely symbolic. As an illustration of this, the primary schools of our large cities, as shown by statistics of the United States commissioner of education, have been, and still are, employing on an average 30 per cent. of the whole time of the grades in the process of learning to read, and another 20 per cent. on the formal process of learning to spell. This time is spent in formal reading and spelling exercises, in which the content of the lesson is incidental and the calling and spelling of words are paramount.

A majority of the committee are inclined to believe that the requirements of purely symbolic training should be limited during the early part of a process of education to the time necessary to acquire the power of calling ordinary words at sight. Words are the symbols of thought, but the ready perception of them merely as words must be acquired somewhat independently of the meaning that they convey. By this it is of course not to be inferred that they should be studied apart from their meaning, but we here refer to them simply as symbols to be recognized as units in sight perception. When this power is acquired, further continuation of the reading lesson, merely as such, is probably a waste of time, inasmuch as every thought process which the exercises of the school furnish requires the constant use of words. There is a growing feeling that much is learned in our schools today by great painstaking, which if left until the riper experience of tomorrow, would be learned incidentally, and without conscious effort. It is further believed that the tendency to symbolize second-hand ideas early in the course is often continued into the higher grades, and even into the high school in the form of nature-studies from books, and of text-book science. These general reflections prepare the way for the consideration of the question before us. From the standpoint of the pupils, there appear to be several advantages to be gained by a change both in method and in subject matter of the seventh and eighth grades. This change might possibly be made in the schools without removing these grades from the places they now occupy, and might be made by the schools themselves. But, since the methods and the subject-matter to which reference is made, would be of a nature more in accord with those which are already familiar to the high-school teachers, the belief seems to be growing that the incorporation of the seventh and eighth grades into the high-school course might more surely accomplish the object sought.

The committee, after considerable correspondence, finds that while on the question of the proposed change there is not a complete unanimity of opinion, there are preponderating arguments in its favor. In presenting these opinions we wish to disclaim any intention either to disparage the work of the elementary schools or to praise the present work of the high schools. We are mindful that the most urgent need in making such a change would be a better knowledge of the child than is usually displayed either by the grade teacher or by the average teacher in the high school. The reasons in favor of an equal division are as follows:

1. This plan would give the pupils the advantage of being taught by teachers specially trained for the different branches, such as English, mathematics, science, history, and geography. Much gain would come from the better teaching that results from the adaptation of the teacher to work for which he is best fitted, and for which he has made special

preparation. This, it should be understood, need not be in the direction of any tendency toward requiring the pupils to specialize. It only means that a teacher, specially adapted by nature and education to teach a certain branch, can do more for his pupils in that subject than when he is required to divide his attention among several branches for which he is less fitted, and for which he has made no special preparation. It is within the last twenty years that this principle has come to be recognized in high-school work. It seems clear that the better a teacher knows a subject, the better he will understand its real essentials, and better know what to omit as the work passes down to the elements. It is now generally recognized that an artist can do more to interest a child in drawing than can a teacher who has no talent or interest in art; that a physicist can arouse an interest in the laws and phenomena of nature when the general teacher would fail; that the skilled mechanic can command the respect and interest in toolwork when the novice would become the laughingstock of his pupils; that it takes a musician to teach time and harmony so that it will be appreciated. Altho there is not a consensus of opinion on this point, the belief is growing that it should not be different with the teaching of arithmetic, of geography, of history, or of grammar. Another effect of the suggested change would be to provide departmental study for many who do not enter the high school. Some significant data on this question has recently been obtained by a questionnaire recently sent out by Mr. C. S. Hartwell under the auspices of the Brooklyn, N. Y., Teachers' Association. Of the 362 answers to the question as to whether the extension of departmental methods downward would provide such methods for many who do not enter high school, 268 answered yes, and 94 answered no. In answer to the question: "Would you favor departmental teaching thruout the three last years of the grammar school at least in large cities?" out of 451 answers, 324 answered yes, and 127 answered no. The individual opinions of your committee stand in about the same proportion, the majority favoring departmental extension at least to the seventh and eighth grades, especially in the large cities. In small towns and villages the additional expense would make the change more difficult. The objection to departmental methods and special teachers comes in the main from private schools in the East, in which the teachers are college graduates. In these schools the English plan of form-master is thought to have advantages. The arguments in favor of departmental methods have in the main come from the public schools, where we have to rely on women who, however efficient they may be, have usually at best only normal school training.

2. The departmental plan would give the children the advantage of daily contact with several personalities instead of that all-day association with one teacher which often breeds an artificial psychic atmosphere that savors of the abnormal. It requires more genius than is possessed by the average teacher, with a room full of children from ten to fourteen years of age, to preserve for six hours, an atmosphere perfectly wholesome and free from maudlin sentimentality on the one hand or from a carping artificial restraint on the other. The apprehension usually felt at the untying of the apron string is quite unnecessary and results from a misjudgment of the true conditions. The consensus of scientific opinion is that the dawn of adolescense calls for a change in the child's environment, that the period of love of change, adventure, and individual initiative has arrived and should be indulged by giving him more freedom and elbow room than are usually accorded in the seventh- and eighth-grade rooms of an elementary school where the child is made to suffer the cramping influences of one teacher in a somewhat monotonous drill in which perhaps the three R's occupy too much of the time. The change of teachers from hour to hour which the child experiences in the secondary school under the departmental plan, answers a natural craving for movement and variety which takes possession of him at the dawn of adolescence and accompanies him till its close. The committee desires to emphasize that it is presupposed that the teachers in the high school are exercising a co-operating oversight of the pupil, and that they consult together concerning his welfare and proper management.

3. In the high school, the pupils would have the advantage of laboratories in which elementary science might be advantageously begun much earlier than it is at present.

The science in present high-school courses is not elementary enough for beginners and should be preceded by a year or two of simplified objective lessons which should form the basis of written and oral expression. Such work done by carefully selected teachers and with proper apparatus would greatly enrich the pupil's curriculum, and would give full play to the practice and exercise of the common symbols of thought and would be in strong contrast to the ancient methods of laboriously teaching the symbols as ends in themselves. This again is presupposing that this thoughtwork would be properly correlated with the written and oral expressions in the English classes thru carefully prepared and corrected note-books and essays.

4. If in the high school, the manual-training shops could be modified, enlarged, and employed to start the pupil in this work without sending him off to another school in another part of the city, the work itself, being under one head, could be unified and graded to better advantage than at present, and its true relation to drawing could better be shown and brought out.

5. The work in the modern languages could be begun earlier and continued longer than at present, thereby making it possible to learn the language naturally by means of conversation and primary reading before making the study of grammar and construction such laborious and strenuous affairs. Grammar is always in order, except when followed as a business. Many teachers are beginning to question the value of studying the modern foreign languages merely as dead languages by syntactic translations for disciplinary purposes. If our pupils could have a year or two of primary training in this line, a majority of your committee believe that the work now attempted in the high school would become more efficient and less artificial.

6. The downward extension of secondary school work would mitigate the present abruptness of the transition from the district school. The distinct break between the primary and secondary schools, the radical change of method on entering the higher school constitutes one of the chief evils of the system. This transition results in the withdrawal of 50 per cent. of those entering the high school during the first year. The committee unanimously believes that the downward extension of the secondary school might check this enormous loss of pupils in what seems to be the critical period. We do not believe, however, that this downward extension would to any considerable degree shorten the school life of the pupil or that the change should be undertaken with that end in view, but that it should be done rather to the end of fitting more thoroly the pupils for what is now the first year in the high school. There is no doubt that the numerous failures during the earlier years in the high school are caused largely by a lack of preparation for this work. This preparation should be made thru departmental methods in an elementary form not with a view to gaining time but for the purpose of that development, assimilation and growth needed for the grade of work now constituting the high-school course. The element of growth that requires time should not be ignored and extension downward of high-school work should therefore be made for the purpose of a better preparation for higher work and not for the earlier beginning of it in its present form. Elementary science and observation lessons under special teachers, constructional geometry, concrete graphical notions in algebra, elementary lessons in foreign languages by direct methods, and a large amount of easy English reading more for the purpose of inculcating habits of reading than for learning rules of reading, should, we think, take the place of some of the reading, writing, and arithmetic as now practiced in the seventh and eighth grades. Such a course would be natural and continuous and it would lessen the abruptness that now exists between the primary and secondary schools. Such a preliminary mastery of the elements would make it possible to treat the subjects of the secondary school in a more leisurely and more satisfactory manner.

7. *In the opinion of the Committee the six years' division would cause more pupils to enter the ninth year than do under the present plan.* The present plan which is generally understood to constitute a completion of the three R's educates parents into the belief

that this constitutes a common-school education and that it is complete in its preparation for the ordinary duties of life. Since the common school is frequently regarded as a natural stopping place, many pupils end their school life at this point under the mistaken notion that the work of the high school is merely ornamental and not needful as a preparation for the duties of active life in gaining a livelihood. On the other hand, if the influence, the methods, and the spirit of the secondary school could be begun two years earlier this erroneous notion of finality and completeness at any point in the system might in some measure be avoided and pupils and parents be spared the fallacy that there is any logical stopping-place in a process of education.

8. An equal division of the twelve years would make the system more nearly self-consistent. This is shown by the experience of other countries. Without accepting the ideals of European countries or emulating their defects arising from social segregation, we must admit the advantage which the secondary schools of England and Germany enjoy in introducing the appropriate study of some of the secondary school subjects even as early as nine years of age. The mistakes in these countries that have been made in this direction, resulting at times in an unwholesome cramming, are due not to the early introduction of secondary subjects but in the failure to introduce them in sufficiently elementary form. Your committee is of the opinion that whatever may be freely admitted as the evils of European systems, the early introduction of secondary subjects constitutes their one chief redeeming feature. In England the pupil is prepared for the secondary school in the so-called preparatory schools where departmental methods are employed two or three years below the age of adolescence. A similar process is being successfully tried in certain public schools in Chicago and New York and the belief is growing among superintendents of city schools that the American practice of postponing the introduction of secondary subjects to the age of fourteen sacrifices two years of valuable time.

9. The downward extension of the high-school course would give the pupil time to prepare for college. While it is not the primary end and aim of the secondary school to prepare pupils for college it is now quite generally admitted that the culture, power, and practical knowledge that a thoro course would give to a pupil under favorable conditions would equally fit him for college. The requirements for entrance to colleges are constantly increasing, and our best high schools with their four years can no longer meet these requirements. Special work for those students who expect to go to college is now provided in the form of work outside the regular course, and extra time is given to coach candidates in order that they may reach the matriculation standard. This means that our high schools no longer hold their rank as secondary schools, no longer do the work up to the college. It seems evident that more time and more leisure are needed to reach this standard. As pupils enter the high schools unprepared for its work, so do they knock at the doors of the college before they are prepared for its requirements. The committee believes that the downward extension of the high-school course, if it would not shorten the time of preparation and lower the age of college entrance, would accomplish the work more effectively. This opinion is corroborated by the colleges themselves. In answer to questions sent to representative college presidents bearing on this phase of our problem, the consensus of college opinion may well be quoted from the reply of President Eliot. He says:

> The proposed equal division of the twelve years in the public schools between the district and high schools has an important bearing on the work of the University because of the better training which such a training would afford. The lengthening of the high-school course at the lower end would tend to the earlier introduction of certain subjects now deferred to the pupil's disadvantage, and it would at the same time admit the pupil sooner to the departmental system of instruction in these and other subjects—a system which more and more high schools can afford, but which is often beyond the means of the district school.

10. The lengthening of the high-school course to six years would help to solve the problem of the outward extension of the course of study and the crowded curriculum.

The enlargement of the secondary field in the last few years, that has brought in the mechanic and domestic arts and the commercial branches has increased the complexity of the problem. The educational values of the newer branches are rapidly coming into recognition. But the belief in the exclusive competency of the traditional branches to provide the essentials of culture still holds sufficient sway to influence school authorities to retain in their curricula a sufficient number of these branches to somewhat overload the course. The desire to take the practical studies and still to keep on the conventional highway to knowledge constitutes the transition process through which we are now passing. The additional effort that this increase of work requires calls for more time, and the addition of two more years to the high-school course would give the leisure necessary to insure normal growth. The committee believes that the reading, the writing, and the practical arithmetic that are necessarily incidental and accessory to this work will be secured in a better way during these two years with the additional gain in actual knowledge and working-power.

The economic aspect of this question does not at first appear so favorable to the lengthening of the high-school course, for this would call for a greater proportion of high schools which are, of course, more expensive than primary schools. While the total number of school buildings, including both high and primary, would not have to be increased, the additional cost of equipment in a larger proportionate number of high schools would add something to the expense of the present arrangement. Whether this additional expense can be afforded or is justified will depend on local conditions and on whether the necessity is sufficiently great. The amount that the American people are willing to tax themselves for education seems to be limited only by the unnecessary and the undesirable. Whenever a proposed improvement in our schools has appealed to the community as a necessity, it has always been met by a ready and a willing response. Laboratory science, drawing, music, calisthenics, commercial branches, and manual training have, in their turn, been incorporated into our school curricula, each entailing additional expense. Even the additional load of free textbooks seems to be borne without a murmur, wherever it has been tried. The same results will probably follow an appeal for additional high schools. Whenever the belief that they would add to the efficiency of the school system, and better equip the children for the duties of citizenship, they will be provided. The economic difficulties involved in making the change suggested in the report would be greatest in small towns and villages in which the smaller number of pupils and the limited means for the maintenance of schools make departmental methods difficult to secure. To this objection it may be noted that the necessities of a change in the smaller towns are not so great as in the large cities which are deprived of many of the natural and stimulating conditions afforded by the country. We may therefore conclude that the change could be most easily made where it is most needed. The extensive laboratories, workshops, and museums in our large city schools may indeed be considered in part as an attempt to restore to the pupils those forces, exercises, and experiences which are the inheritance of youth in the country. But the immense inertia of custom to be overcome before this want becomes a part of public consciousness will probably make this change slow in coming. For this reason the committee believes that the inertia of the economic objection will gradually be overcome by conservative, even-tempered discussion and by further study of the problem.

Respectfully submitted,

GILBERT B. MORRISON, principal of McKinley High School, St. Louis, *chairman*
WILSON FARRAND, principal of Newark Academy, Newark, N. J.
EDWARD RYNEARSON, director of high schools, Pittsburgh, Pa.
ALBERT B. GRAHAM, College of Agriculture, Ohio State University, Columbus, Ohio
J. H. FRANCIS, principal of Polytechnic High School, Los Angeles, Cal.

Committee.

DEPARTMENT OF HIGHER EDUCATION

SECRETARY'S MINUTES

FIRST SESSION—Tuesday Morning, July 9, 1907

The Department of Higher Education met at 9:30 A. M. in joint session with the departments of Secondary Education and Normal Schools. In the absence of President W. L. Bryan, of Indiana University, Vice-President George A. Gates, of Pomona College, Claremont, Cal., presided.

President Joseph H. Hill, of the State Normal School at Emporia, Kan., presented a paper on the "Preparation of High-School Teachers from the Standpoint of the Normal School."

The next paper presented was prepared by Reuben Post Halleck, principal of the Boys High School, Louisville, Ky., and was read by J. Stanley Brown, superintendent of Township High School, Joliet, Ill. This paper was on the theme, "Preparation of the High-School Teachers from the Standpoint of the High-School."

The third paper of the morning, which was presented by Alexis Frederick Lange, dean of the faculty of the college of letters, University of California, Berkeley, Cal., treated of the "Preparation of High-School Teachers from the Standpoint of the University."

The papers were discussed by C. P. Cary, state superintendent of public instruction Madison, Wis. The discussion was continued by Robert J. Aley, professor of mathematics, Indiana University; J. H. Hoose, professor of philosophy, University of Southern California; John R. Kirk, president of State Normal School, Kirksville, Mo.; A. O. Thomas, president of State Normal School, Kearney, Nebraska; J. H. Hill, president of State Normal School, Emporia, Kan., and Alexis F. Lange, University of California.

The chairman named the following Nominating Committee:

Robert J. Aley, of Indiana. W. O. Thompson, of Ohio.
J. H. Hoose, of California.

The department then adjourned.

SECOND SESSION—Friday Morning, July 12

The Committee on Nominations made the following report:

For *President*—Oscar J. Craig, University of Montana, Missoula, Mont.
For *Vice-President*—W. O. Thompson, University of Ohio, Columbus, O.
For *Secretary*—Lillian Day Berry, Indiana University, Bloomington, Ind.

The report of the committee was approved and the nominees were declared elected as officers of the department for the ensuing year.

President W. O. Thompson, of the University of Ohio, presented a paper on "The Care of Freshmen." The discussion was opened by Fletcher Bascom Dressler, professor of the science and art of education in the University of California and continued by Professor Robert J. Aley, of the University of Indiana; C. P. Cary, state superintendent of public instruction, of Wisconsin; and Mr. Howard of the Los Angeles High School.

The second paper of the morning session was presented by Professor Wallace N. Stearns, Wesley College, Grand Forks, N. D., on "Religious Education in the State Universities."

President W. O. Thompson of the University of Ohio presented the following resolution, which was unanimously adopted:

Resolved, That the Department of Higher Education, recognizing the rapid growth of the state universities in numbers and in the importance of social and religious work for the students, most cordially approves the movements now being promoted in order to make adequate provision for the social and religious needs of students, and expresses the hope that the various churches will co-operate in meeting this need.

The paper was discussed by Benjamin Ide Wheeler, of the University of California; Clifford W. Barnes, ex-president of the Illinois College, Lake Forest, Ill.; Professor Allen of Iowa College, Grinnell, Iowa, and Dr. McClish, formerly of the Pacific University.

Vice-President George A. Gates, of Pomona College, California, made some remarks on the matter of standards and urged that the Department of Higher Education go forward to a higher standard.

John G. Bowman, assistant secretary of the Carnegie Foundation for the Advancement of Teaching, was introduced. He gave some account of that organization and spoke especially of the restrictions imposed by the committee on those institutions applying for the benefits of the fund.

The department then adjourned.

OSCAR J. CRAIG, *Secretary.*

THE PREPARATION OF HIGH-SCHOOL TEACHERS

I. FROM THE STANDPOINT OF THE NORMAL SCHOOL

JOSEPH H. HILL, STATE NORMAL SCHOOL, EMPORIA, KAN.

Public education in the United States is a healthful organism because it is a growth, not a creation. Organization there has been, but artificial articulation and ideally perfected machinery do not mark the real stages of its progress. There has not been, it is not to be expected nor desired that there will be, absolute uniformity of development in the educational systems of the various states of our Union; but out of the clash of conflicting opinion and the varying circumstances producing local differentiation, there comes the gradual, sometimes the painfully slow, evolution of the ideal. Looking back over the seventy years of our educational history, since the beginning of the "Common-School Revival," every term in the theme assigned me for this paper, the teacher, his preparation, the high school, the normal school, illustrates this enlarging process and each must be considered from the point of view of a continually expanding content. The training of the high-school teacher, ideally considered, is training for a vocation, I wish I could say without controversy as an already attained reality, for a profession, tho etymologically, I like better that word "vocation." The high calling of the teacher is more than that of a hearer of classes or the keeper of a school. This is part of the traditional content from which time is but slowly emancipating us. The teacher's work, ideally considered, with the enlarging social and individual meaning of education, involves considerations as many-sided as life itself, and his preparation implies more than knowledge of the subject-matter of instruction, more than the orderly arrangement of that knowledge from the aspect of presentation, not acquisition—tho that is one of the things to be emphasized—more than personal

culture and discipline—if it is still permissible to use that term "discipline." It implies a preparation of character, of purpose, and of power, technical skill, the professional spirit, the grasp of a philosophy, the mastery of an art. A coherent and philosophic view of the processes of education must be supplemented by training in the application of the principles of education to practice; and this whole body of general and specific preparation must be invigorated and transformed by that intangible something that we call teaching power, the infusion of that breath of pedagogic life without which there can be no living soul. There is an atmosphere that the intending teacher must learn to breathe, there is a consecration of personal power that he must make if he would fully find himself in his work.

For such a professional spirit and training, the normal school has from the beginning distinctively stood. It exists for the training of teachers and nowhere now is there a question as to its right to exist. The professional ideal that the normal school in the seventy years of its history in the United States has been the chief agent in maintaining that public provision must be made for the training of public-school teachers, not only is universally conceded by educational theorists, but recognized in practice in every state and territory of the Union. Yet singularly enough, there are educational leaders who will concede as valid every claim that the normal school makes as to the preparation of elementary teachers, who yet both in theory and practice place the ideal training for high-school teaching on a far narrower plane. I do not want to be misunderstood. I concede absolutely the necessity of a greater degree of academic training in specific subjects in preparation for high-school teaching than most of the normal schools have in the past been able to give, tho the value of much strong preparation for high-school work done in the normal school has been unduly minimized; but the normal-school contention is that the ideal preparation for high-school teachers is not fragmentary nor merely quantitative, not so much of physics or of chemistry, weighed by scale or measured by test tube, not so many segments of mathematics, of biology, or of language, that the processes of teaching are more subtle than any processes of merely intellectual research, that soul values and life values imply tests and measurements and discriminations that no emphasis placed merely on knowledge can assume the power to make. I met the other day, on the train, a long-time friend of mine, a commercial traveler, who began to sell goods in boyhood and has little of education save for the four years of training in the school of the Civil War, where he fought with distinction, and his lifetime of business experience. He introduced me to a physician who was sitting next to him, and in doing so, said: "I am only a dry goods drummer, but you two men ought to have something in common. One of you understands the body, the other understands the mind." Personally, I was disposed to receive somewhat humbly his estimate of my understanding, but I felt that in his tribute to my profession he had expressed, in the rough, a subtle appreciation and a true educational philosophy. The high-school teacher is more than a teacher of

subjects, else the community has little need for his services. If something of the mother gift and the skill as well as the intuition of the mother heart are needed for the teacher of little children that the doors of the house of knowledge may be opened properly, and that fit interpreters may stand at eye gate and ear gate, how much more are skill and strength and heart and vision needed to guide and guard the boy and girl in embryo manhood and womanhood thru the groping and stormy years of adolescence to the full discovery of their best powers and possibilities. For this work it is vital that manly counsel and womanly patience co-operate, hence the social necessity of dignifying and elevating teaching as a man's vocation. My friend who said that the physician understood the body did not say all the truth if he merely meant that the acquisition of a certain sum of knowledge of anatomy, of the pathology of disease, of chemistry, and materia medica constituted the physician's equipment; but he was right in his analogy, because the physician received more than that in the medical school, because it was a professional school. All that he possessed in the way of natural aptitude, whatever of preliminary culture and experience he brought to his study of medicine reinforced his ability; but he received something from the spirit of the school, the community of interests that bound him to his fellow-students, and the point of view from which in the classroom every problem of medical practice was approached. In clinic and hospital and dispensary, he learned to apply medical principles to practice to the end that there might be the firm nerve and the steady hand with the precision of assured knowledge when the surgeon's knife must be used, the unerring eye and the discriminating touch to interpret instantly and accurately the changing flush or pallor of the countenance and to read aright the elusive story of the pulse beat, the analytic power and judgment to co-ordinate remedies and conditions, and the something else without which he is not a true physician, that code of ethics which renders sacred the closest confidences of family life and sends him out uncomplaining to respond to every cal of suffering and need. Such a professional spirit is not only a possibility, but a necessity in a distinctive teachers' school.

There is yet another phase of the pedagogical training of the high-school teacher that must not be overlooked. The public schools exist fundamentally for preparation for citizenship. On that ground, and that alone, the state can justify every dollar of its taxation. That preparation, if it is completely made, involves not only an adequate social and political outlook, but it is also, and primarily, a preparation of character. It is for the youth who is in training a process of self-adjustment, the establishment for him of the habits which will make him a well-ordered, self-governing member of society. The meaning of the high school in this sense is immeasurably broader than the notion of a fitting-school for the university. It is well that the ideal should be preserved of preparing for the university, because of the tone, the stimulus, the incentive to aspiration, the opening of the doors of opportunity, that this implies; but this is the high-school function incidentally. Primarily, it is more. The

high school is not the fitting-school for the university. The university, in point of fact, is the receiving-school from the high-school of the best and the most aspiring. The high school is the school of life for most of its constituency, a culture center for the community, and in that fact, its chief social significance lies. The high school brings the college to the poor man's door, not to the poor in purse alone, but to the poor in aspiration, nourishes a fertile growth on hitherto unwatered and barren soil, raises the common level, lifts the community higher. A friend of mine some years ago made a special study of some of the political problems and perils of one of our greatest cities. When fresh from the study of the subject, he talked with me about it. I asked him the question: "What are the most hopeful signs for the future?" There is food for thought in his promptly given answer: "There are two, rapid transit and the public high school."

The high school itself is a social organism, society in miniature presenting, as such, a grave range of problems both in administration and instruction, yet presenting possibilities to the teacher that may well command the highest forms of professional skill. The high-school teacher has to do with the formative life of the community, its best life, in its most plastic years. Then, however, the dawning sense of responsibility is beginning to be felt and the transition is taking place from the sense of membership in the family alone, to membership in the community. Should preparation for the direction of this work be merely an academic equipment?

Now as to the relation of this training to the normal school, we started with the proposition that the normal school is specifically a professional school, that the training which it gives, if it performs its proper function, is distinctive in character and different in kind from that implied in general education; only incidentally and not primarily is the normal school a place where a general education is to be acquired; and it follows as the converse of that proposition that adequate training for teaching as a profession cannot be merely an incident or an adjunct to a course whose chief aim is a general education. I do not say that no preparation for teaching can be made outside of the normal school. There are distinguished men and women in this company today of the noblest and strongest type as teachers, whose experience would disprove an assumption like that. As a young theological student, I sat at the feet of venerable men who had made a divinity school and had not been made by it. There have been Lincolns greater than any law school. There are Edisons innocent of degrees, who, after they had blazed out the pioneer paths of science, might say with becoming modesty: "Who is to confer the doctorate upon me!" There are rugged men in every walk of life who have carved out their own paths to leadership, and whose title to manhood is not a patent from the schools. Teaching is a gift as well as an art. Teaching power is not an acquisition and not even a training solely, but power may be set free by training, and power plus training may become power multiplied. The normal school is not the exclusive agent for the training of teachers, but is the state's chief agent and

as such it must build up the professional spirit, establish the standards, create the ideals, send out the men and women whose call is to educational leadership. The logic that justifies the existence of the normal school on the ground that the state must prepare its teachers for its system of public schools, carries with it irresistibly the inference that the normal school to perform its legitimate function must make provision for the adequate training of the teachers fitted to direct or to perform the work belonging to every phase of that system from the primary grade to its culmination in the secondary school.

The normal school, then, as a factor in American educational progress, to live, must grow. The extent and character of the training that it offers must not be determined by the ideals of half a century or a quarter of a century ago. Its relative place in an educational system must be determined in the light of due consideration of other educational agencies; but it cannot live a restricted, it must have a free and expanded, life. The meaning of education is immeasurably broadening with the increased complexity and scope of our modern life; the term "teacher" has a larger content than it ever did before, and the term "normal school" must have an enlarging content continually commensurate with the highest ideals and the best phases of our changing educational life. We, in America, are just beginning to build up the true body of educational doctrine. We are slowly learning. We are yet in a transitional and experimental stage in the application of that doctrine to practice. Never was the training of teachers more important than now, never was there a greater need for the elevation of professional ideals and their strength thru every phase of school activity, never greater demand for effective agencies for the linking of educational philosophy and method with sound educational practice. To this work, the normal school is called; not in the old narrow sense that it is a school of rule; not to the exclusion of the university, for from the libraries and schools of research of the university must come the development of a systematic pedagogical philosophy, and the best-trained university brain can find for the application of its powers no theme that is loftier, more important, nor more alluring. The university spirit, broad, scholarly, scientific, emancipating, must be a leaven pervading every part of our educational organism; the best scholarship, the most accurate methods of research, the broadest outlook, the clearest vision, the highest type of intellectual life are not too clear, too high, to be the essential constituent elements of true culture everywhere, to enrich the common life, and to reach ideally thru all our system into the lowest grade of the elementary school. But the organization of the common life with its activities is the problem; the everyday experience, the life and beauty of nature, the elemental relations of society, the needs of vocation, the application of ethical principles to daily duties, these constitute the body of material which in the common school the child, the embryo citizen, the future man or woman, is to be helped to assimilate into a well-ordered whole—here, in the kindergarten, in the primary and the grammar school, in the high school, the college of the people, the philosophy of education is to be applied. Language, literature,

history, economics in the broader sense, physical and biological science, the graphic and the manual arts, esthetics, psychology, ethics, every phase of culture must have its application to such a problem. To the practical leadership in this work, the normal school—I would rather say, the teacher's training-school, or in its larger implication, the teacher's college—is called.

The normal school, infused with the broadest spirit of modern scholarship, with the greatest hospitality to new ideas and new methods, with an intense and earnest spiritual and intellectual life, retaining always what it possesses in pre-eminent degree, a close and sympathetic contact with the common school and the common life, must be the propagandist of a sound educational philosophy and the exponent of a realizable educational practice for the public school. In the state it must be a unifying influence. It must seek to weld together in sympathetic co-operation all the agencies, direct and indirect, for teacher-training; it must be in close and practical co-operation with all who are charged with responsibility for school supervision and instruction. It must at once create and supply demand. With beckoning finger, it must set up ideals yonder, and here with hopeful hand it must furnish the means for the uplift and send out those who can supply the demands created in every special field. In this broad sense it must be in vital touch with every part of the public-school system. It must be a herald of an intellectual and spiritual kingdom; it must proclaim its evangel of progress to the remotest rural district. It must be a center of sentiment and power for the most highly organized schools of the urban community. It cannot have a low ideal and fulfill its mission. It cannot have a narrow scope or a restricted curriculum, always saving the single exception, making the one restriction, that nothing in its curriculum is justified that does not have a pedagogic purpose. Its work is not to prepare for the grades alone, tho it must prepare for the grades. Its work is not primarily the academic preparation of the high-school instructor, tho it can legitimately and must, in the nature of the case, lay an adequate foundation for his pedagogic training. That training it can give in a favorable atmosphere and under conditions that nowhere else exist. The normal school must emphasize thoroness in academic training. The students need a living contact with the subject-matter of instruction. He must acquire the facts, grasp the import of the principles, see clearly the relations, but before he is prepared to teach, he must not only have been thru a subject, but around it, must have looked down upon it from above and looked back upon it from beyond, must have reviewed it, not as a subject but as a process, must have seen it grow again in his own mind as he would have it grow in the minds of others.

But the normal school must be broader in scope than this. It must be at once a school of educational experiment and practice, a school of administration, where the problems externally affecting school organization may be studied in theory and seen exemplified in practice by the intending supervisor or superintendent. For such a work the model or practice school is the laboratory.

It must be a school of special method, not for the invention of devices, but for the discovery and the application of pedagogic principles, testing and organizing into consistent form the best and latest ideas, sending out, not alone men and women to teach, but to be teachers of teachers, stimulators, diffusers, inspirers, exemplifiers of the best practice and the most progressive thought. In its own field it must be a field of research, not in all lines of science—that is the province of the university—but in the theory and history of education, in the search for a true philosophy based upon the psychologic study both of child and of adult, and the application of that philosophy to the whole range of man's activities. For this it must command the best brain and the best possible laboratory and library equipment.

The normal school, as a professional school, is to establish professional standards, maintain professional ideals, create the teaching spirit; but it differs from other professional schools in one essential particular. The subject-matter of instruction is not clearly, and it may be said never can be so completely as in the law school, the medical school, the divinity school, differentiated from the course whose aim is general, not vocational culture. This fact is an obstacle in the way of a clear appreciation of the distinctive character of teaching as a profession; but it has its compensation in this, that no course of teacher-training can be adequate that is not cultural and liberalizing in large degree at the same time that it is professional. The teachers' college, where its subjects of instruction are the same as in the university, must approach them from a different point of view. There must be a more definite study of relations and processes, a constant correlating and organizing of the material with a view to its presentation, its psychologic aspect as it is to be assimilated and reorganized by the mind of the taught. This implies not merely the individual problem of teaching, but the exemplification of practical possibilities in the organization of its work with reference to the collective needs and problems of the schools into which its trained teachers are to go and for which alone it exists.

To attain such an ideal the normal school must tower far toward the heavens and yet it must ever keep its feet upon the earth.

Who shall say that the field is not broad enough, that the need is not great, that the mission is not a lofty one?

II. FROM THE STANDPOINT OF THE UNIVERSITY

ALEXIS F. LANGE, UNIVERSITY OF CALIFORNIA, BERKELEY

I cannot but start with the thought that, however ways and means may vary, our American educational system must needs be one system for one unstratified people, and that its structural parts, like those of the democracy in whose image it is made, constitute a union, one and inseparable. Each of these parts has its own self-directed life to live, its own institutional function to perform; each acquires abundance of life and power only thru the self-conscious life of the whole. Institutional sectionalism should be

an anachronism; secession is treason. Our school system, altho essentially one, is not unitarian but highly orthodox trinitarian, each part co-ordinate with the other two, each part at one with the others as to indwelling purpose—that of advancing the nation of tomorrow on the way to democracy full grown, by assisting its youthful members to attain each unto his full stature as a socially efficient personality.

Of the many trails of thought leading from this stand-point up into the cañon where we are prospecting at this hour, I select, for emphasis, the one sign-posted, "To service." Lexington gave us a country of our own. Fort Sumter made us a nation. Our failures in self-government are giving self-knowledge and an enlarged vision of conduct. Confronted on its upward way by anarchy on one side, state socialism on the other, and "government by knaves at the cost of fools" in the middle, this adolescent nation is growing ethically self-conscious and is learning to give battle with the moral weapons of its available public spirit—the habitual expression of character socialized. Fortunately, educational thought has reached a corresponding stage of evolution. The individual and the social *summum bonum* are seen to be Siamese twins. How to make an instructed and disciplined willingness to serve more and more a purposed result, appears as the foremost task laid upon those intrusted by the nation of today with the training of the nation of tomorrow. One sure sign of their success will be a growing resemblance between what is known as school or college or university spirit and the spirit of the school or college or university as organs of democracy at its best and truest. Another will be a steady increase in the number of the brightest and best, eager despite the *Fata Morgana* of individual success on a cash basis to turn such creative genius as may be theirs toward the fine art of education. An Elizabethan era of education may be a dream, but to foster the educational mood of many by habituating all to intelligent social action necessarily means fewer artisans and more artists and hence becomes part and parcel of a vital quest after the best way of preparing teachers, particularly the teachers and molders of adolescence.

More specifically involved in the same quest is the need of being guided by the future as well as the past, by nascent organic articulations of the school system, rather than by the boundaries set by tradition—a difference not unlike that between "woman's sphere," so called, now and of old. In California, at least, the training of secondary teachers must reckon with the fact and vista of rapid reorganization and expansion and with the call for new forms of leadership. The most salient features of situation and drift are these: First, the State University stands committed to the working-principle—progressively vocational or work-centered aims in the training of juniors and seniors; cultural or man-centered aims for freshmen and sophomores. In other words, secondary education until the end of the sophomore year; university education from that point onward. The implied adjustments to high-school curricula, accomplished already or well under way, the agreements with the colleges of the state for the mutual transfer of students, the obvious trend of normal-

school development, and, last but not least, the new law authorizing the upward extension of the high school by two years—each and all attest the existence of a new terminus for a new inter-school highway and the belief that this terminus conforms to normal growth, social and individual. Second, signs are not wanting of a similar shifting of the starting-point from the ninth grade to the seventh, not by segregation of pupils, nor necessarily by the general introduction of so-called high-school subjects, but by the grouping of optional studies about a reduced common center and by adding to the instruction of every pupil a distinctly forward look thru the conscious adaptation of the aims and methods of secondary education to budding interests and growing powers. Add to this the fact that with but slight modifications the work of each half of our four-year high schools would become similarly basi-terminal and it will be seen that an eight-year secondary course with starting- and stopping-points at two-year intervals, is among the probabilities of the near future. Third, we are looking forward to a rapid development of vocational departments of schools of secondary grade. Social and individual needs are seen to demand them. Obstructions and obstructionists are giving way. Moreover, present indications point to an early consensus among our educators that in order to minimize the two-fold danger of social cleavage and of mere C.O.D. training, vocational preparation must branch off from the primarily man-centered course at one or the other of the places just hinted at. It follows that the teachers must be on the same level with those of the traditional subjects.

Manifestly "new occasions teach new duties." "To be as good as our fathers we must be better." One of these duties is to further progress by stimulating and meeting the demand for fit teachers of applied science and commercial branches. Another is to refrain from checking progress by shortsighted attempts to do in a normal school what a university can do better now and forevermore, and *vice versa*. Advance in California has been due in no small degree to a patriotic division and correlation of functions.

A third duty is to give every teacher a chance and to let him know that he has it. We cannot fairly or wisely maintain a democratic system for pupils and a caste system for training their teachers. Let us make the highest possible requirements for each main type and stage of education; yes, but also a clear passageway for talent paired with energy. It makes a vast difference to a tenant and his attitude toward the terms of his lease whether he lives in one room with no way out or up, or in a house with may mansions, with connecting corridors, and an elevator in running order. Hence, in the first place, such co-operation of normal schools and universities with respect to terms of admission and equivalents of academic courses and standards that the first choice of the would-be teacher need never be the last, and that a graduate of a normal school may with a minimum extra cost in youth and coin fit himself at a university for work beyond the grammar grades and so look forward to being both called and chosen for the station he has it in him to fill.

But the elevator must not stop at a high-school principalship of the present

style. That it does so now is an accident of history we need not suffer from forever. The frank recognition of the difference between the first two years of college and the high school as one of degree only implies the remedy. The first step for more than one university should be to reduce its "swollen fortune" in freshmen and sophomores by actively promoting their distribution among federated colleges, normal schools, and six-year high schools. The second would be to give them teachers specially prepared for and experienced in secondary education and to make the positions of such teachers a worthy goal, including salary, of legitimate ambition and initiative. And even this goal need not be absolutely final. If high-school men could attain unto bishoprics not even the best would become real-estate agents. As for the university, a number of its most vexing problems would vanish. The new professors of its freshman and sophomore classes, which should never be abandoned, would naturally be *personae gratissimae* as embassadors to the high schools; neither its teaching nor its research function would be threatened as now with atrophy, thru nonuse; it would starve its young instructors in only one way instead of two by setting them chiefly to junior, senior, and graduate work, work that they have learned to do and by which they could thrive in achievements as scholars and research teachers. It would not then lack men who know how to minister to the cultural needs of all of its students and of the public at large.

But whether or not the high-school teacher will fall heir in this way to another part of the province once ruled by the college professor of old, the very least we can demand by way of preparation is, first of all, the modern liberal culture that a bachelor's degree represents—now and then. He of all teachers needs to be a rich socialized character in the making thru many-sided knowing and thru doing and varied contact with life. In him especially should the nation become nobly self-conscious and self-directive. Nor should his general culture lack the dynamic intellectual fitness which scholarship now implies. An intelligent appreciation of the forces that have made the world of today and are shaping the future presupposes a conscious first-hand acquaintance with the mighty force of modern research, with its methods and processes and not merely with its results. I will add in passing that I regard segregation and training in pedagogical technique before the bachelor's degree has been obtained as justifiable only on the ground of temporary expediency.

Secondly, if every college graduate, whatever his future calling, needs a pinch of fitness for the search after truth, the future high-school teacher needs a solid pound of it. To the requirement of genuine culture must be added the demand for a certain scientific mastery of at least one subject, not necessarily the one the candidate expects to teach. This is the meaning of the California law prescribing at least a half-year of academic graduate work at institutions where such work is carried on. Liberation from textbook slavery, a sense of power and the joy that goes with it, ambition to keep informed of the onward march of thought and investigation, greater skill in selecting essentials and in

furthering correlation of knowledge, a firmer grasp of principles and greater resourcefulness in directing their application, increased respect for the truth on the part of pupils and teachers alike, a sterner conscience as to workmanship, no more misinstruction from the last professor's lectures, and, instead, a clear path to the education of adolescents by means of instruction—such things are worth having, are worth paying for. The emancipation of the high schools depends on them. They alone can substitute something better for the present partly voluntary, partly enforced, and altogether exasperating, Ruth-Naomi relation of high schools to the universities.

A cultured personality, surefooted in the realm of modern scholarship, assures a rich and true content for the art of which trained youth is the expression. All the more essential is it to insist on the first steps toward the mastery of this art thru the study of its history and its underlying principles. Like the poet, the teacher is both born and made and should be in the making before he appears in public. Unlike the poet even a still-born teacher can be rubbed and licked into useful life, provided he has character and scholarship. But I am not addressing archaic university men. Not why, nor even what, but how best to teach the potential high-school artist is our main question. The danger of a trade-school type of training is remote, I believe; as remote probably as that of mere formalistic instruction in some patent technique. We have learned to do better things in better ways. Not so the danger of aims and methods determined by the science function of a department of education rather than by its art function. The future high-school teacher may or may not develop into a school historian or a scientific methodologist or a leader in educational thought; the thing most needful for him is to find the springs of professional inspiration, to get his bearings as a prospective representative of the nation in secondary schools, and to lay hold of the rationalized do's and don't's that will enable him to teach so as to educate, as soon as principles and precepts become wisdom and unconscious individualized skill and the abstractions of psychology turn themselves back for him into live adolescent Americans.

But no propaedeutic to the art of secondary teaching can be truly vital without opportunities for observation and practice teaching, under conditions somewhat idealized, maybe, but otherwise representative. The creation of such opportunities on a permanent institutional basis is one of the chief goals toward which the teachers of the land should set their faces. Where wealthy saints or sinners resist the appeal for social service, the means must be procured from public funds. The preliminary question of a plan workable now and capable of extension for future needs cannot of course be answered in the same way everywhere. The essential is a high school or high schools where candidates may see and may try under adequate guidance.

At the last session of the legislature a bill was introduced to meet this want for California. Approved by the education committees of both chambers, but withdrawn on account of the financial situation due to the San Francisco fire, it is likely to be offered again, with the backing if possible of the teaching

bodies of the state. It provides for a state high school on or near the grounds of the State University, a school to be classed as an integral part of the high-school system, but placed governmentally under the regents of the University as a board of trustees. Its educational policy and efficiency as a training high school would be controlled, not by any institution or department but by the State Board of Education thru its powers as the certificating authority. Another school of the same type might be established near Stanford University, in fact wherever in the course of time the maximum of advantages could be had at a minimum of cost and waste of effort.

This may not be the royal road, but it certainly seems to run toward the object of our common quest—the best preparation of secondary teachers, for a developing high-school system, thru the co-operation of all teachers in the interest of our adolescent boys and girls and therefore of the nation.

THE CARE OF FRESHMEN

W. O. THOMPSON, PRESIDENT OF OHIO STATE UNIVERSITY

The subject suggested for this paper has been given more or less consideration from the standpoint of the college and of the secondary school. Intelligent observers have not failed to see that the secondary schools have been rather extensively inspected with a view to their efficiency. The colleges have shown a desire to secure well-prepared students and some willingness to adjust their courses to meet the situation for incoming freshmen. The rapid development in the secondary schools and the wide opportunity in courses of instruction offered by the modern college, especially in state universities, have encouraged the very large increase of attendance at colleges. It is natural to expect that with the increase in numbers there would also be an increase in the number of those who would make mistakes in the course selected in the college and probably make a mistake in going to college at all. Making full allowance, however, for these considerations, there still remains a decided feeling that freshmen do not present a very encouraging condition in higher education. Too many of them fail to make satisfactory progress in their studies and the feeling is quite pronounced that too many of them lower their moral ideals and thus for one reason or another fail to reflect credit either upon themselves, the school in which they were prepared, or upon the college. There is an awakening sense of responsibility for the problems presented by the freshman. It should be noted in passing that while the numbers of such students in the aggregate would be considerable, the percentage is not large as compared with the whole number of freshmen, but sufficiently large to give concern as to the methods of dealing with the conditions. So far as the classroom is concerned, most colleges have tried to reduce the size of a section or class of freshmen to about thirty. From twenty-five to thirty-five is the prevailing number so far as I have been able to discover. It is believed that in most subjects a teacher can handle a group of this size effectively. In laboratory subjects the sections

are of different sizes dependent somewhat upon the science involved. It is my judgment upon reasonable inquiry that the size of the classes has been so carefully considered as to relieve the situation from serious criticism. The problems remaining, therefore, seem to relate chiefly to social conditions and the quality of instruction given as represented in the character of college men who teach freshmen. On the other hand, there are problems arising out of the numbers of young men and women applying to colleges for admission. Very many of the secondary schools find themselves, like the colleges, crowded as to numbers when compared with their facilities. In order to reach some testimony in the case I sent out a list of seven questions as follows:

1. Do freshmen show a large percentage of unsatisfactory results?
2. To what causes do you attribute any recognized unsatisfactory results?
3. Do you employ recent graduates or inexperienced teachers for freshmen?
4. What special difficulties present themselves in the teaching of freshmen?
5. Do you make any special provisions to insure the best practicable results in the teaching of freshmen?
6. What special advantages have you observed for freshmen in the smaller colleges as compared with the larger?
7. Any remarks on the topic, "The Teaching of Freshmen," not suggested by the questions and that arise from your own experience will be appreciated.

This list of questions was sent to several classes of institutions, namely: First, a list of the larger state universities; second, a list of small colleges of the best grade; third, a list of the denominational colleges of the larger type, and fourth, a list of colleges on private foundations representing in attendance the small college and the larger institutions. This seemed to the writer to bring testimony from a sufficient variety of institutions to insure the desired information.

Upon question one—whether freshmen show a large percentage of unsatisfactory results—I found a variety of replies. One large institution responded that about 10 per cent. were warned concerning unsatisfactory work, and that twelve students out of 465 were dropped from the freshman class for these reasons. This was regarded as a low percentage. Another large university testified that from one-third to one-half of the students entering freshman classes were unsatisfactory as to previous preparation, and that accordingly they maintained a low level of work during the freshman year. Two large universities on private foundation replied in the negative. Two small colleges replied "larger than any other class," and one replied "scarcely large but slightly greater than it ought to be." Some of the replies were indefinite and brought no information. Two or three institutions made no reply whatever to this question.

In reply to question two, as to the causes for any recognized unsatisfactory results, more extended replies were furnished. One denominational college emphasized the lack of previous drill, stating that the students evidently had been *over* but not *thru* the subjects studied; that they had impressions, but the essentials had not been drilled into them; and that worst of all their previous

experience had not been of such character as to develop in them the power of application and concentration. One of the best of the state universities replied in three particulars: First, lack of vigorous training in the preparatory school; second, preparation deficient in quality, certain studies having been slighted, and third, laziness and indifference on the part of the student. Another representative denominational college put emphasis on the lack of preparation for entrance; in some cases to the large deficiency in meeting requirements, and in many cases students had not been trained to study hard and long. Another university located in a large city replied in one particular, namely: the inability of freshmen coming from home to appreciate and use their new freedom. A representative state university answered, inadequate preparation coupled with the abruptness of the change from high-school methods of study to those of the university. A representative denominational college replied, new conditions of work and unaccustomed methods. They have not yet been sifted out and lost their weaker members. One of the larger state universities replied in two particulars: First, we do not examine for admission, but accept certificates of principals and expect a considerable number of freshmen to fail the first semester. Second, freshmen have not generally had to work as hard as they are required to after they enter the university. One of the small colleges replied: lack of proper preparation and especially lack of training to protracted and logical thought. The fact that some people never ought to have entered the freshman class is hinted at by one college. "Youthful or parental ambition is not a certain evidence of intellectual ability or enduring resolution."

Question three, concerning the employment of recent graduates or inexperienced teachers for freshmen was generally answered in the negative and some of them put it rather emphatically. Three of the institutions, however, pleaded guilty to having a few recent graduates who were allowed to teach a limited amount while candidates for higher degrees, and one admitted that recent graduates were employed, but never unless they had had experience in teaching. In any other case it was believed that this fact influenced the general results adversely.

Concerning question four, as to special difficulties presented in teaching freshmen, some replied that there was nothing especial except as suggested under question two. One or two made no reply whatever, and several united in the belief that the variety of training received prior to college experience accounted for the freshman's inability to adjust himself to the new conditions. Others thought that the lack of college spirit at the beginning revealed itself in a lack of enthusiasm for their work. A number agreed that the freshman's sense of "awayness" from home, his larger freedom, and new methods of instruction confused for a while, and in the meantime the tendency to insist upon a conformity to the teacher's standard made a certain number of failures inevitable.

Concerning question five, as to special provisions to insure the best practicable results in the teaching of freshmen, the small college emphasized personal

attention, a limited curriculum, and a trial examination about the middle of the term. Some of the larger institutions emphasize personal interviews with deficient students and special watchfulness on the part of teachers, and others that a somewhat careful study was made of the preparation of the student, and still others have made provision for small sections with personal advisers. In one instance special private coaching of deficient students was provided for. One small college replied that no general provisions were made but that specific treatment was given to particular cases as they arose.

In reply to question six, concerning the advantages for freshmen in the smaller colleges as compared with the larger, the smaller colleges all united in the belief that there was an advantage due to more individual attention, while the larger colleges all agreed that there was no advantage in the smaller college of any importance, and that in many cases the advantage was with the larger college for the reason that the weak were more successfully weeded out and that in the smaller college there was a tendency to keep the weaker students on the rolls. In some instances the answers indicated that the larger colleges were making strenuous effort to meet the difficulties in the case.

Concerning question seven, which requested suggestions on the topic, "The Teaching of Freshmen," very few of the institutions made reply. One suggested that the key to a successful college course was in the freshman year. This, however, brought no suggestion as to help. One other institution called attention to the serious evil in connection with written work, especially with reference to the student's inability or unwillingness to make conscientious distinction between the honest results of his own work and the mere gleanings from books.

In addition to the replies to the formal questions presented above, I have secured considerable information from personal interviews with teachers in a number of institutions during the past year, from interviews with college students, from some personal correspondence on the subject, and from a printed article by Thomas Artle Clark, of the University of Illinois. From these sources I have gleaned the following facts which seem to enter into the problem:

1. Especially in the Middle West students are not well provided for in the matter of dormitories or places for rooming and boarding. This lack of facilities seems to have made it easy for boys to acquire the habit of being away from their rooms. It opens the door for a certain lack of systematic use of time in study. This lack of systematic use of time in my judgment is at the bottom of more trouble in the student's experience than any other one cause. I would be willing to put it up against lack of brains, lack of previous training, lack of good teachers, and lack of a good many other things. This is sometimes expressed in other terms, some people saying that social diversions, fraternity associations, devotion to athletics, interest in class organizations, too frequent attendance upon theaters, too much time in billiard-rooms, and an occasional complaint about the patronage of saloons, and a number of other items are listed as showing why freshmen do not succeed. The real

reason why these diversions hinder students will be found in the fact that most of them have never been trained to make systematic use of time. High-school teachers have met the complaint against the too crowded curriculum with the reply that more curriculum and fewer social evenings would be much better than less curriculum with the present tendency toward society functions. This is an evidence of my contention that in the earlier years of the student's life there is found the same lack emphasized in the freshman, and we may add that the average business man declares that the college man fails to appreciate the importance of an economic use of his time.

2. I offer the second remark, namely, that most of the replies secured from men overlooked the fact that teaching is not yet a perfect art. College men have complained about teachers of the high school, and teachers of the high school are just awakening to the fact that they could make a just complaint against the teachers in colleges. Both these people try to escape by affirming that the responsibility of every man's education rests with himself. This is manifestly true. At the same time responsibility for good teaching lies with the teacher and with the institution that employs him. For a variety of reasons the teachers of today are not equal to the demand. The pay has not yet reached the point where the profession is overcrowded. It is also to be observed that most of the teachers in our secondary schools and universities have had very little, if any, professional training. The experience of many colleges has been that their younger professors have come with a doctor's degree and intensity of method and a total lack of appreciation of the business of teaching. They have experimented upon the students and after a reasonable time have gained an experience that has often made them good instructors, but at the beginning the student received rather inferior opportunity. In spite of all that men will say I believe that a careful investigation of college instruction would develop the fact that a good deal of aimless teaching is done, and that the unsatisfactory results are due in large measure to the fact that the modern university teacher has overworked the theory that he is responsible only for his instruction. Too many of these men have failed to realize that the mere imparting of knowledge is not teaching. Successful teaching means not merely instruction in knowledge, but inspiration, uplift, and outlook. It is a mistake to presume that these results can be obtained simply from a knowledge of the subject. They come in large degree from association with an inspiring teacher.

3. I think it fair to remark that the unsatisfactory results complained of are in considerable measure due to the rapid development of both the secondary school and the college. The past twenty years have witnessed a remarkable stride in the attendance upon both these institutions. High schools and colleges alike have been pressed to provide classrooms and teachers to make any sort of provision for the increasing numbers. Incident to this rapid growth new problems have arisen. The encouraging feature about the situation is that everywhere in all sorts of institutions there is a sincere desire for the reasonable solution of these problems. I have failed to discover any insti-

tution in which there were not some people awake and alert to the situation. The indifferent college professor is losing his standing. The last decade has recovered itself from the feeling of indifference as to results. Some of these men are adding to the spirit of the modern college the spirit of earnest interest in the student. I have found in many colleges that the most experienced men have chosen to teach freshmen in order to keep in touch with the situation and improve it. In some cases men have declined to allow their younger professors to teach freshmen; in other cases where there were sections and the classes large I have found the habit of moving the teachers from section to section in order to test the work from the standpoint of the more experienced instructor. So far as the intellectual results of college life are concerned I believe that they are in the process of solution. The scholarship of the modern college is not likely to suffer.

4. There remains, however, the large question involved in the social relations as involving in some degree the scholarship but in larger degree the character of the individual student. The much-debated question as to the value of a college education has had two phases: first, that the college man thru his instruction was not closely related to the activities of the world; and second, the college man was out of sympathy with the everyday world. Manifestly the modern college and especially the state universities have made a distinct effort to relate their instruction to the active, busy life of the world, and the most progressive college men of today have tried to bring themselves and their students in touch with the modern ideas of life. These things account in my judgment for the prosperity of all sorts of college organizations and activities. There can be no doubt that in these organizations and in the large numbers of students the world has had an influence in determining the standard of college life. The boy no longer comes to college to be instructed in all the little details of daily living. He brings to it pretty well-established habits and pretty well-defined views about life. In the larger schools these students coming from widely distributed areas are by no means a unit either in habits of thought or of living. The city-bred boy is in very sharp contrast with his country-bred cousin. The colleges of the Middle West bring together students of a greater variety than those of the East or than those of the college of a generation ago. The result is that the modern college is in some degree a miniature of modern life. When these men get together on the college campus they form the source of social and moral ideas. It is inevitable that some of these men will be improved and that a few of them will deteriorate. This should determine their liability to fail before their college career is closed or if by chance they succeed in passing the scholarship requirements, will either reform or realize their failure soon after entering upon their business or professional careers. It ought never to be forgotten that the college experience is quite a sifting process. The assumption so often made that the majority of students who enter our colleges should graduate would not seem to be well grounded. On the other hand a college education is not absolutely necessary,

and some men will probably do better by having tried and failed in college than they would have done if they had been nursed along and finally given a degree. The tendency to criticize the college for not having made a finished product out of all the material furnished needs little reply. When we recall that a very large percentage of all the business men fail sooner or later and that a very large percentage of them recover from these failures, we are prepared to take a more reasonable view of the failures in college life. Many of these failures will be stepping-stones to recovery.

5. In conclusion I offer a few remarks that may suggest a general discussion of this topic. The first is that within a few years the colleges of the country will have gotten away from the building era and a greater emphasis will be put upon educational work and more money will be devoted to the care of the students and less needed for the construction of a building in which to provide for it. In the next place these large aggregations of students will require and I hope receive consideration in the way of better provision for the community life as expressed in dormitories, better facilities for physical education, better facilities for social and religious instruction, better facilities for amusements and reasonable social life. I note with satisfaction and approval that a number of institutions are appointing special advisers for students for the purpose of helping the student in the selection of his work and in giving him counsel upon his own experiences. This will probably do as much for the faculty as for the student. It will develop the inefficiency of some men and provide among other things for such changes as ought to be made to secure a desirable supervision of both teachers and students. The tutorial system recently inaugurated at Princeton has been commended in the public prints, but the experience is yet too limited to warrant any permanent conclusions. The expense of the tutorial system is so great as to make it impracticable for general use. If, however, it succeeds in developing superior results in education, the money will be forthcoming to give it a much wider application. The problem of responsibility for the student is difficult of solution. It is well that we emphasize to ourselves the obligation resting upon the institution and upon the teacher, and it should not be forgotten, however, that the individual shall bear his own measure of this responsibility. The more exacting scholastic requirements of the college are a fruitful source of complaint, but on the whole a loyalty to these requirements will secure better results than is possible under any theory or practice of indifferentism.

RELIGIOUS EDUCATION IN THE STATE UNIVERSITIES

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The religious statistics of our state universities afford eloquent testimony to the character of the American people. Students and faculties manifest a lively interest in religious matters, a large majority of both, in many instances,

being actively engaged in definite religious work. The ranks of the ministry, the foreign field, the student volunteer bands, and local ministerial clubs made up of prospective clergymen all bear witness to the real spirit of these institutions. The year-book of the Young Men's Christian Association for 1905–6 reports for sixty state universities and colleges an aggregate enrollment of 9,189 with a total budget of $43,310. These figures are more remarkable from the fact that all such service is entirely voluntary, and in addition to the exacting duties prescribed by the university. Already notable buildings have been erected, as Cornell ($50,000), Missouri ($50,000), Virginia ($80,000), Illinois ($90,000), and Wisconsin ($100,000).

The state university is increasingly a fact. During the past decade the increase in the attendance on our universities and colleges amounts to 4½ per cent., but within the same period state universities have doubled and even quadrupled. The position of the state university as the head of the public-school system, its enormous prestige in technical and industrial lines, and its avowed purpose to train for vocation all point in one direction. We are face to face with an actual condition of things, with a vital, burning, rapidly growing problem.

With all its wealth of equipment, the state university lacks on three points, the religious adviser, the dormitory, and systematic religious instruction.

1. The religious need is deep-seated and no man can get away from its problems. There is needed the presence of a man who, by virtue of training, character, and experience, is qualified to serve as a spiritual specialist, one who knows the information to be imparted and who understands the candidate who is to receive it. Such a man would indeed be a prince among his kind, a peer of any on the university staff, and he would be made welcome in the university circle. To leave this all-important service to local pastors already overburdened and lacking in the special skill and discipline to minister to the particular needs of the college community is to court failure. In our great university centers there is need of several such men, every one of whom in a brief period would find abundant clinic. Pious exhortation alone is not sufficient. This spiritual adviser must be able to go with the growing thought thru the shadows where every thinking mind must pass.

2. Increasing disparity between appropriations and the growing demand for libraries and laboratories will for some time to come prevent anything like adequate dormitory facilities. Increasing registration permits local communities to boost prices until in some instances charges are becoming prohibitive. Further, it is to the dormitory and not to the lecture-room or library or gallery that memory turns back. It is here that the youth meet and know one another, in the common room, the reading-room, the little chapel, and it is in these unofficial places that the real battles of life are fought, disappointments conquered, and decisions reached that touch life and destiny. Here is the lodestone that binds the old "grad" to his Alma Mater.

3. What is rulable in a denominational institution and permissible in a

non-sectarian school built up with private funds, becomes a delicate matter in a university supported, as is the state university, by people of all faiths and opinions. To find religious instructors absolutely free from personal bias, theological preference, and denominational tendencies is well-nigh impossible, and to use public funds for anything less is to arouse suspicion and hostility. In the light of present views on the subject, the state university must exercise large precaution against just grounds for charges of partiality. The prohibition set by public opinion is the insuperable barrier against those forms of agressive religious culture which none could be more anxious to inaugurate than the authorities of the state universities.

There must be, however, an educational element commensurate with the needs and demands of the student, so that when religious instruction is compared with that in secular lines there may be no odious contrasts. The student enters the university with youth's ideas of art, letters, science, and religion. He graduates with mature ideas of art, science, and letters, and ought to carry with him mature conceptions of the problems of religion. Skepticism is due not to the ravages of so-called higher criticism, but to lack of clear, definite knowledge, and to contempt born of indifference. While engaged in our commendable missions to the outcast and to the heathen, we are not justified in neglecting the broad field afforded by the state university. Our zeal for the masses is a righteous one, but to overlook these other, the flower of the nation, the future leaders in civic, commercial, and social life, is for the church to leak at the top.

The need of the state university is the opportunity of the church. Even the Christian associations cannot do the work; it is out of their province. Once a pioneer in secular education, this burden is now lifted and the church is now free to enter upon her special task, the one to which she is directly called. Nor would such work be of the nature of charity. These young people belong alike to the nation and to the church, for church and state, tho rightfully separate agencies, are beyond all dispute activities of one and the same people.

Interest is awakening. (1) In a number of institutions student societies or guilds have been formed, the object of which organizations is to bring young people together for closer acquaintance, to bring before the students church leaders of distinction, and to stimulate means for spiritual culture. These organizations have accomplished and are still rendering invaluable service but as the student-body and student interest are varying quantities, the permanence of such student societies is at best precarious. (2) A more adequate expression of religious interest is the Guild Hall, which plan, to that of student clubs, adds the feature of a chapter house which provides a small chapel or assembly room, refectory, and rooming-privileges for a limited number of students. An abiding factor is secured in the form of a permanent resident, a man or woman as the need may be, who serves at once as a friend, spiritual adviser, and even as an instructor in religious and denominational topics. (3) Local churches are seeking opportunities for service. Pastors

communicate with the several pastors of the state and ascertain the names of prospective students of the persuasion. Further correspondence discovers the interests and tastes of said students and on the opening of the school year church and students are in a position for helpful co-operation. In a number of institutions the churches are represented by college pastors whose duty it is to care for the needs of the student-body. The Congregational Church of Iowa City, for example, provides for a student membership which, while serving the present need, does not take the student from his home church.

In a number of cases permanent lectureships have been established. Under the auspices of the Christian Church are the Bondurant Fund in Illinois, the Cary Fund at the University of Virginia, and like enterprises in Oregon and other centers are maintained by this church.

Already there are instances where the work has become a foundation. At the University of Kansas, Westminster House provides pastoral care for Presbyterian students in attendance and instruction in English Bible and other allied branches. The Woman's Board of Missions of the Christian Church maintains a Bible chair whereby instruction is afforded in English Bible, Hebrew, and Missions. The regents of the university promise official recognition in the way of credits as soon as the work establishes a given academic standard. The Christian Church also maintains such enterprises at the universities of Texas and Oregon. The denomination is represented at the University of Missouri by the Bible College of Missouri, for which academic rating is assured by the university in the near future.

At the University of Michigan, seven denominations are supplementing the work of the university along religious lines. The Congregationalists support a student pastor; the Unitarians maintain a church to which the American Unitarian Association contributes generously; the Methodists support a Wesley Guild; the Christian Church supports a Bible Chair; the Presbyterians have a plant worth $40,000, an endowment fund of $10,000, a college pastor supported by special contributions from the churches of the state, and an educational feature in the way of a course of lectures on church history given by the director; the Baptists maintain a $25,000 plant and a college pastor to whose salary the State Missionary Society contributes one-third; the Episcopal Church maintains a plant (Harris Hall) worth $25,000, a lecture endowment of $20,000, a student organization (Hobart Guild), and a college pastor. Similar enterprises are projected by the Roman Catholic church at Cornell University and the University of California.

Helpful as all these enterprises are, and invaluable to the life of the student-body, they are still incomplete. Students are busy, and if they are left to decide upon the disposition of time and energy remaining after the prosecution of university duties, the agencies making for religious culture do not receive their fair share of attention. The first question of the student is, will it count, i. e., toward a degree. Even the Bible chair, though doing work that warrants academic credits, is only a step on the way; it is not imperfect, but incomplete.

At the University of California the Congregational, Baptist, Unitarian, and Christian bodies have located theological seminaries, and the Presbyterian and Methodist Episcopal (South) Churches are planning similar enterprises. This plan is doubly beneficial. It helps the University by adding to the academic group a feature as essential and legitimate as law, medicine, engineering, or agriculture. Without so important a feature the university is only a torso. Such an arrangement is helpful also to the seminary in the way of increased library facilities, supplementary courses offered by the university curriculum, lectures open to the public, and the special features by leading scholars as provided by every considerable university. Especially valuable is the plan to the prospective clergymen, who during the period of their preparation are put in constant touch with those among whom and for whom they are to labor. The future pastor comes to know the character and needs of his future parish, wins the respect of those who thus come to know him, and enlarges and enriches his own experience by vital touch with human life in all its diversity. Even here there is a single criticism. The clergyman is cared for, but definite provision is not made for the religious culture of the layman.

An independent department is maintained at the University of Wisconsin, whose work is recognized by the university. The work is not under the auspices of any particular church, the plan being to include in the faculty men of the several creeds. This is the nucleus of a larger and more complete establishment.

One plan remains to be discussed—the associated college. By associated college in this connection is meant an institution—presumably denominational—located in the vicinity of a state university or other leading educational center, and co-operating with it. Its principle has been well stated.

> There is no organic union with the state university. The unity of the ideal of their common founders assures co-operation of agencies to secure unity in the joint product. That is all that is necessary. The separation of church and state is preserved in the full authority to teach and in the administration of funds. Only wasteful competition is eliminated. The "Church" and "State" are made to appear what they really are, not separate, antagonistic organisms, but simply two specialized forms of activity of one and the same people.

It is proposed that such an institution shall stand for a definite religious purpose, offering instruction of a high grade in such subjects as the Old and New Testaments, their languages and literature, church history, and the special history of the denomination concerned, and in such other subjects as current opinion now prevents the university from offering. Such an institution also renders an invaluable service by providing residence facilities to students of the supporting denomination and to any others as far as accommodations permit. By agreement with the authorities of the university mutual relations could be established, each recognizing and crediting the work of the other. A graduate department of such an affiliated college provides the advanced work and the facilities necessary for candidates for orders desiring to take the degree in divinity.[1]

[1] In 1906–7, the initial year of its existence as an affiliated institution, Wesley College offers in

(1) Its school of arts courses in philosophy, Hebrew, biblical Greek, English Bible, and church history, i. e., such courses, tho not offered in the university, may yet be counted toward a degree.

(2) The Bible normal school provides for those workers in the various departments of religious educa-

The practical wisdom of the scheme is apparent to any but the casual observer. It is a policy made necessary by the changed conditions and the enormously increased cost of education. Fifty or twenty-five years ago an increase in the number of students meant simply the addition of so many chairs in chapel and recitation room. Today the elective system, the multiplying of technical arts, and the increasing demand for courses in engineering and in the pure and applied sciences, makes the problem a serious one. At least a half-dozen of our universities are spending a million dollars yearly, and a dozen or more require an annual budget of half a million.

In the older states some church colleges could wisely devote their endowment to affiliated work in connection with the state university, while others, by virtue of their location, endowment, and acquired strength, have a clear mission as separate colleges. Every case must be determined on its own merits. The affiliation idea is not a sign of retreat, but of advance, to safeguard the energy through co-operation. The church college does not abandon the field. Affiliation leaves neither the state university nor the church college just the same as before, but the result is a new university aggregation in which the essential mission of both is yet recognized and assured without needless duplication of libraries, laboratories, and endowments. The sum total of results will be better for all concerned.

The plan is practical and economical. Especially is this true in new territory where church foundations have not yet been built up. Transportation and communication have become so simple that objection cannot be raised. The time is past when a university or even a college can be built up by plate collections. A college without a library or laboratory is a hopeless aspirant for favor. Without means to pay ample salaries, such a college must be content with a teaching staff of inferior men. Is it wise to attempt to duplicate work already adequately provided for, or is it better by honorable co-operation to husband resources and thus to promote the interests of all concerned? In the long settled sections the problem remains: What shall we do for our young people who are already in the state universities?

It avoids all problems of church and state. There is an error current that church and state are separate, even competitive agencies. They are simply forms of activity, the same people working thru both. By the affiliated-college plan common instruction is provided by the central institution along scientific and technical lines. In the field of religious education each sect provides

tion, who, while not wishing to take up university work, are yet desirous of making some further preparation for their duties.

(3) The conservatory of music offers such opportunities as are usually offered by the best conservatories. The instructors of the conservatory also carry on what work is offered in the state university.

(4) The Wesley Guild, whose object is to bring the college into more helpful relations with the Methodist students of the university, and to bring the students into touch with the leading men of the denomination.

(5) To bring to the college for a special course of lectures some leading scholar, preferably of the denomination, under whose auspices Wesley College is conducted. The first year is made notable by the presence in this capacity of Professor Borden P. Browne, LL.D., of Boston University.

(6) The tenth month of the academic year is to be devoted to institute work at different points in the state

instruction for its own adherents. As the foundations are on private grounds, the university remains free from any entangling arrangements that might bring down upon it the charge of discrimination and partiality.

The plan leaves the church free to carry on the work which is peculiarly its own, i. e., the giving of religious instruction and the training of intelligent denominationalists. The denominational college burdened with the entire round of instruction finds it impossible to give to this special field the time and attention possible in the associated college relieved of the necessity of offering work in scientific and technical lines.

Such a college affords an opportunity for its students, and for any others who desire to see and to hear leading men of the denomination, and to learn of its purpose and spirit. There is awakened a living interest in church affairs, and the students are impressed with the same respect for religious education that they now have for instruction along technical lines. This, the separate college, burdened with the entire college curriculum, is unable to do. But the affiliated college, enabled to concentrate its energies on a smaller field, is able to render this very service which is most vital to keep the church in living touch with the young people and to assure their co-operation and support in years to come.

A final consideration is the larger vision, the broader horizon made possible by the larger institution—and character strong and abiding is as much to be found in the larger as in the smaller institution. The larger institution can provide better facilities, better instruction, and more competent direction. Experience in nearly a dozen institutions, large and small, confirms the writer in the belief that students receive as much personal attention in the larger school as in the smaller, and in most cases from men of wider experience and information.

Young people of different tastes, preparing for different pursuits in life, are mutually benefited by being educated together. The prospective clergyman educated along with the future lawyer, farmer, engineer, and scientist comes to know their ways and problems and has opportunity to make himself and his cause understood and acceptable to them. He is more the man and less the monk, the better able to sympathize with and to counsel men by reason of having grown up with them. And experience shows that promising candidates for the ministry are to be found in the state university, provided the church is present in proper form to speak the right word at the right time.

APPENDIX

THE UNIVERSITY-COLLEGE AFFILIATION IDEA IN CANADA

For some time the University of Toronto has held such relations with church colleges. The presidents of these associated colleges, the term college being used in a more general sense than in the United States, applied not only to arts colleges, but also, e. g., to theological seminaries, are ex-officio members

of the university council and senate. There is a division of the curriculum and a just division of fees. All submit to the entrance conditions of the university which are those framed by the educational authorities of the Province of Ontario. Each college establishes its social and religious requirements without conflicting with others. University honors are open to all. The colleges thus associated are: (1) Knox College, *affiliated* with the University of Toronto, is a "purely" theological seminary, and is supported by the Presbyterian Church, in Canada. By a system arranged with the university, students taking a full arts course may substitute certain subjects in Knox College. In this way the combined course in arts and divinity may be shortened one year. (2) St. Michael's College, also *affiliated,* is under the auspices of the Roman Catholic Church. In philosophy and history the students of St. Michael's take their lectures in the college, the results of the examinations being accepted by the university. St. Michael's comprises arts, theology, a commercial school, and schools of grammar and high-school grades. (3) Wycliffe College, an institution of the Church of England, is *federated* with the university. Federation is by act of Parliament and renders the relation between the two institutions organic, the college becoming a part of the university itself. Federated colleges are represented in the senate and council of the university; affiliated institutions have a representation in the university senate only. (4) Trinity College (connected with Trinity College is St. Hilda's College, residence for women, under the direction of a lady principal) under the control of the Anglican Church, is also a *federated* college. Trinity College, like its sister federated colleges (University and Victoria), offers under the Federation Acts of 1887 and 1901 such courses as were set off to the colleges, omitting such work as was assigned to the university proper. Members of other communions are admitted without religious test and for the courses in church catechism and the prayer book are allowed to substitute work in Christian ethics and Christian evidences. Trinity College likewise maintains a school of theology. (5) Victoria (University) under the auspices of the Methodist Church, in Canada, is *federated* with the University of Toronto. Affiliated in arts with Victoria University are four other colleges located in different parts of Canada. Victoria also provides a faculty in theology. (6) University College, a secular college, by the Federation Acts of 1887 became the complement of the University of Toronto in the system of higher education provided by the Province.

At McGill University are located four divinity schools, all affiliated with the university. There is also a department of Semitic languages in the university itself, which, however, is used almost exclusively by the theological students. These four schools are: (1) The Congregational College of Canada, under the supervision of the Congregational Church in Canada; (2) The Diocesan College of Montreal under the auspices of the Church of England; (3) Presbyterian College, in connection with the Presbyterian Church, in Canada; (4) The Wesleyan College of Montreal, under the auspices of the Methodist Church, in Canada. Affiliated with McGill University, are four other arts

colleges located in the provinces of Quebec, British Columbia, and Nova Scotia, with three of which colleges the affiliation concerns the work of the first two years in arts; in the fourth, the work of the first year only. McGill University is also affiliated to the Universities of Oxford, Cambridge, and Dublin,

under conditions which allow an undergraduate who has taken two years work and has passed the second year sessional examination in arts, to pursue his studies and take his degree at any of these universities on a reduced period of residence.

At the University of Manitoba four denominations have established colleges or rather, the University comprises these four colleges and the governing Board. (1) St. Boniface College, representing the Roman Catholic Church; (2) Wesley College, the Methodist Church, in Canada; (3) St. John's College, the Episcopal Church, in Canada; (4) Manitoba College, the Presbyterian Church, in Canada. Representatives from each of these colleges sit in the university council. Degrees of divinity are granted by the affiliated colleges, candidates for the degree being required to take or pass examinations on the subjects of the first two years in arts as prescribed by the university, Greek being compulsory. Such graduates in divinity have in the university equal rights and privileges with the other students of the university. The university has the sole power in the Province of Manitoba to confer degrees in Arts, Law, and Medicine. The University of Manitoba more nearly resembles the University of London than, perhaps, any other American educational institution.

DEPARTMENT OF NORMAL SCHOOLS

SECRETARY'S MINUTES

TUESDAY MORNING, JULY 9, 1907

The Department of Normal Schools met in joint session with the Departments of Secondary and Higher Education for consideration of the topic, "Preparation of High-School Teachers."

TUESDAY AFTERNOON, JULY 9, 1907

A joint session was held with the Library Department, the subject being "Instruction in Library Work in Normal Schools."

THURSDAY MORNING, JULY 11, 1907

The Department met in the State Normal School, Los Angeles, Cal. The meeting was called to order by the president, John R. Kirk, of the State Normal School, Kirksville, Mo.

In the absence of Miss May Whitney, of Emporia, Kansas, E. E. Balcomb, of Weatherford, Oklahoma, was appointed secretary.

The opening address by President John R. Kirk, was entitled, "A Statement of the Issues Now Confronting the Normal Schools of the United States."

W. A. Clark, professor of psychology and pedagogy, State Normal School, Kearney, Neb., read a paper on "The Pedagogical Laboratory in the Scientific Study of Education."

Discussion was led by Ella Flagg Young, principal of the Chicago Normal School, Chicago, Ill.

President Charles C. Van Liew, State Normal School, Chico, Cal., gave a report of the Committee on Statement of Policy Regarding the Preparation and Qualifications of Teachers of Elementary and High Schools, as follows:

The committe reports in favor of the following recommendations as a statement of policy:

1. That the candidates for admission to normal schools should have a high-school education or its equivalent.
2. That the normal schools should prepare secondary teachers by giving three- and four-year courses to persons who already have high-school education or its equivalent. To do this, they should have academic departments as strong as the colleges and should have a high school as part of the training-school.
3. That the universities and colleges should give full credit to normal-school graduates, year for year, provided they had a high-school education or its equivalent when they entered the normal school.
4. That the public schools should be freed from the domination of the higher institutions. The public schools are schools of the people and each grade or school above should be a receiving school for the one below.

On motion of President J. H. Hill, State Normal School, Emporia, Kansas, this preliminary report of the committee was adopted. The committee was continued with instructions to make a full report at the next annual meeting.

E. E. Balcomb, professor of agriculture, State Normal School, Weatherford, Okla., gave an address on "Agriculture in Normal Schools: Courses of Instruction and Financial Support."

The following resolution was unanimously adopted:

Resolved, That the Department of Normal Schools of the National Educational Association heartily endorses all legitimate efforts to secure national aid for normal schools in preparing teachers for teaching agriculture and manual training.

Report of the Committee on Nominations was as follows:

For *President*—A. O. Thomas, president, State Normal School, Kearney, Neb.
For *Vice-President*—Morris E. Dailey, president, State Normal School, San José, Cal.
For *Secretary*—Henry G. Williams, dean of State Normal College, Ohio University, Athens, Ohio.

The report of this committee was unanimously adopted and the nominees declared elected.

The department adjourned.

E. E. Balcomb, *Acting Secretary*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

A STATEMENT OF THE ISSUES NOW CONFRONTING THE NORMAL SCHOOLS OF THE UNITED STATES

JOHN R. KIRK, STATE NORMAL SCHOOL, KIRKSVILLE, MO.

The most far-reaching movement affecting American education is the organization of the universities. Their tremendous energy and well-marked progress delight us all; but the men managing these institutions are probably not cognizant of the top-heavy condition into which their restless and unreflecting ambition is forcing our school system. They doubtless feel that "education is from the top" and that it should be directed and dominated by those in higher education circles. In many places they have destroyed local initiative. They have reduced many institutions to a state of obsequious servitude. Consciously or unconsciously they undermine the foundations of democracy. They are becoming mighty monopolies.

Their immediate objective point is the high school. This is the instrument thru which to organize and control all other schools. If thru natural expansion high schools should come within reach of all children and the universities should gain control of the high schools, then the so-called "small colleges," the normal schools and the various independent technical schools would cease to have the means of competition and the universities would be all powerful. The man is short sighted who does not see that this is the educational trend in our country.

Hopeful young men, fresh from Ph.D. courses, are being installed into those university offices which have to do with the immediate relations of the universities to the public schools. These young fellows are usually bright and honest, burning with zeal to reform the world; but their horizon is circumscribed by their experiences or by their own recent graduating theses. Most of them are visionary. It is bad for education that men of this type are willing to

assume suddenly such grave responsibilities and wield at once the weapons of warfare in education.

The attendance at the universities is so great that many of them are unable to control their students. The good-hearted, bachelor-like specialists who direct the lecture room and laboratory work in the universities have little or no taste for personal contact with students. Hence their personal influence does not affect the students' conduct.

The administrative department of universities is commonly inaccessible to the student, who thus finds himself not only without restraint but lacking access to any advisers and to the wholesome influence of companionship with older persons of the type of teaching professors.

Conditions in our country are rapidly changing. Youthful persons in large numbers are flocking to institutions of higher learning. The popular doctrine of the free and easy way at the university, the absence of surveillance, "the miniature world," and all such doctrines need overhauling. If the university students were nearly all in graduate work and above the age of adolescence, their needs would be different and the current university doctrines and practices might suffice; but the universities are not merely failing to control their armies of semi-responsible or irresponsible undergraduate students; the dominant sentiment of their faculty men ignores the need of such control. Therefore the direction and control of education by the universities themselves should not be expected to conduce to law and order in the state.

If anyone doubts the failure of the large universities properly to control their students at the present time, he has only to inform himself. His doubts will vanish.

In the last dozen years most of the universities have reversed their policy regarding the professional preparation of teachers. For a long time it was not unusual for the university professor to ridicule the normal school and the content of normal-school education. There were, to be sure, good grounds for criticism. There are yet. But the universities discovered that the people believed in the special preparation of teachers. The change of front came suddenly. Now scarcely any university is without a "school of education" or a "teachers' college" or at least a "department of pedagogy" in actuality or in theory. The institution that can draw to itself the public-school teacher even in summer time is the one having access to the heart of the people. Hence pedagogy, so long ignored and abused, has become a source of popularizing the university.

In some parts of the country the universities have traveling agents called high-school inspectors. Some of these inspectors are men of high type, knowing and sympathizing with the public-school system in its entirety; but no matter how broad-gauged and fair an inspector so constituted may be at the outset, the nature of the case necessarily tends to reduce him, in spite of himself, to a peripatetic functionary whose business is: (1) So to modify the instruction in the high schools as to serve distinctively the purpose of the university

with a view to its enlargement; (2) To control the appointment of high-school teachers; (3) To secure direct contact with members of the high-school graduating classes.

The universities just mentioned usually support teachers' employment bureaus designated as "committees on positions and recommendations." Thru such committees and the inspectors, school boards, and superintendents are indoctrinated as to the discrimination which the university would make among teachers. I think no one should doubt the honest purposes of these committees and agents; but I think they and all other school men should try to discover whither we are drifting and where we are likely to land. I think these men would pattern after foreign countries and I do not believe that European imperialism or any similar system becomes democracy when transplanted to America. All these committees and inspectors become propagandists. They can't help it. They are supported financially and otherwise by large resources. They publish extensively their doctrines. With or without definite purpose they are doing what they can to specialize, cramp, and devitalize the high school; to suppress and supplant the college; and to hamper, restrict, and undermine the normal school, whose chief function they seek to take over into the university. They would leave to the crippled and handicapped normal school only the routine and so-called training which constitute the lowest and poorest part of the professional preparation of teachers. They are full of fine phrases about setting energy free thru training. But training is a term badly overworked and misapplied in educational nomenclature. The dog-and-pony show illustrates training at its high-water mark. Training commonly exhausts energy without setting it free. Training and marking time are too commonly synonymous. Training and education are different processes. Training and the professional preparation of teachers are wide apart.

University men in many quarters proclaim that the normal schools should confine themselves to superficial training-courses of two years' duration with a view to preparing elementary teachers. They are worried lest the normal school should advance a few students sufficiently to make of them, according to current ideals, good high-school teachers. They claim that this would damage elementary schools by withdrawing the energy of the normal school from the restricted services thru which it is supposed to contribute exclusively to the promotion of elementary education. This university creed is fatally weak. Its effect would be to collect and concentrate the ambitious, capable, resourceful, prospective teachers in the university, there to consume their energies in alleged preparation for teaching in high schools. This doctrine is directly detrimental to elementary education. It would send the uncalculating, unambitious, immature and unpromising would-be teachers thru a brief secondary school course and then thru a short-cut professional course into elementary schools.

The influence of some city training-schools is doubtful, if not harmful.

These training-schools are too largely filled with immature high-school girl graduates. The girls have usually had only the child's view of elementary subjects, and at best the adolescent view of secondary-school subjects. In two years these immature, tho well-meaning, young persons are made over and officially stamped as professional elementary teachers. In many state normal schools the procedure is quite similar and equally indefensible.

Some state normal schools advertise themselves as feeders and preparatory schools for the universities. Recently some of the struggling young state normal schools vying with one another had gotten themselves "approved" by numerous universities and were able to show that their graduates could enter the universities with a little advanced standing in the freshman year. It was made very clear that these normal-school graduates could enter universities without being conditioned. Is it not ridiculous that a normal school should be on so low a plane as to bring itself voluntarily into unfavorable comparison with high schools and make itself appear so clearly in the light of an unstable preparatory school?

As for inspection by university inspectors, the independent self-respecting normal school should put the matter on the plane of inter-inspection. The universities need inspection; the inspectors themselves are not beyond some egregious blundering. It looks as if normal schools should say to the universities: "You may inspect us at your pleasure and we will inspect you at our pleasure." One has as much authority for inspection as the other. The matter of advanced standing should be a matter of mutual interest, not of solicitation by one institution and dogmatic authorization by another. Each institution should stand upon an honest and independent basis and say to all the world:

> Take our students as we leave them. Start them in subjects at the points where they leave off with us. Test their ability to carry the new or more advanced work. Judge us in this way by our students or we will have our students go where this will be done. In education we are for the open shop.

Several normal schools in the Middle West prepare both academically and pedagogically teachers for all sorts of public schools from kindergarten to high school inclusive. And why shouldn't they do so? The universities are full to overflowing. These normal schools are large. They can offer advanced academic and pedagogical courses without undue expense and without duplication that is in any way harmful to any institution. As to duplication, there is really no subject-matter which is sacred to any particular institution. This is a free country, not a monarchy. Several of these normal schools have as good laboratories and as good libraries as the best colleges can support. Some of them pay better salaries than the colleges can pay. They have faculty men of the highest attainments, skill, and ambition.

Normal schools of this type are characterized by noticeable masculinity in their student corps. They have teachers' courses and various preparatory courses to which almost any young man with a teacher's certificate can be

admitted. They notice that boys who graduate from high schools seldom intend to become teachers either by the normal school or the university route. They represent the notion that some masculinity is a good thing to have in the teaching corps of our country. They stand for such policies as will attract into the teaching profession as many robust young men as possible. Viewing education as a whole it is discovered that the supply of masculinity in the teaching corps is chiefly thru the ambitious, progressive, self-determining normal schools that stand firmly and always for the admission to the normal school of all persons of honest intentions who give undoubted promise of developing into good teachers. These normal schools represent the wholesome doctrine that for a long time to come teachers' certificates in our country should be secured by virtue of reasonable culture, common-sense, and wholesome personality, regardless of degrees and graduating systems. This doctrine or policy will for some decades at least be practiced in many states and will prove to be the chief means of supplying a reasonable proportion of male teachers for our public schools.

The college courses in normal schools of the type here mentioned have the same effect upon students in the ordinary courses of the normal school that graduate courses in the university have upon the undergraduates of the university. Where such normal schools are in operation the people know what is being done and believe in it. They want it just that way. The people and the legislatures give ample support financially both to the universities and to the ambitious normal schools. Those normal schools, too, that make the most marked growth and the best impress upon education are the ones that are most ambitious and aggressive.

During the past fifteen years the university of a certain state has quadrupled its facilities and almost doubled the difficulties as to entrance and graduation; but the normal schools of this same state have remained almost stationary during the same period. They still offer short courses which are chiefly pedagogical. They content themselves with "preparing teachers for elementary schools." They are overshadowed by the university and controlled by politicians. They are not known to have made any effective contribution to elementary education. They have learned the popular schoolroom practices and have passed the processes along for use in public schools. They will never materially modify education in their state till they change their policy. From the nature of the case an institution that has limits easily reached and no freedom to rise higher by self-effort and no outlook of its own into higher student life of its own, cannot make effective contributions to those forms of education which it professes to supply with teachers. An institution that is dead at the top can't be much of a stimulus to life in any other institution.

One fatal obstacle in the pathway of those normal schools that offer exclusively or chiefly pedagogical courses is this: Pedagogy itself is not yet in pedagogical form as a subject to be assigned, illustrated, and taught. It doesn't contribute sufficiently to mental virility. It doesn't compare with the organized

courses in mathematics, Latin, history, and other subjects. Hence the efficient normal school applies about two-thirds of its student energy to the strictly academic subjects and about one-third of its student energy to professional subjects. In our discussions it is noticed that those who would restrict American normal schools to the exclusively pedagogical courses never mention the procedure of normal schools in foreign countries. There is good reason for their silence on this phase of the issue.

The interpretation of the more common creed of the universities is that a half-educated person is good enough to teach children up to and including the last day in the eighth grade, but a fully educated person is necessary to teach children from and after the first day in the high school. This creed is practically identical with the notion in some rural districts that a cheap teacher will do for small children and that a good teacher is necessary for large children. But the fact is that if we should tolerate anywhere in education a teacher who has taken a short cut to his own education and who has restricted resources, it is in the departmental work of a high school where a settled scheme or plan must be followed and things even in narrow channels are pretty sure to be effectively done. But think of an ignorant, narrow, and poorly equipped man or woman pretending to teach in the fifth, sixth, seventh, or eigh h grade. Think of the varied and immeasurable responsibilities. Who else in the wide world has need of greater resources? Where should scholarship be more thoro or accurate? Is it not clear beyond reasonable doubt that if any man or woman acting in the capacity of a teacher should have a college education it is the teacher in the elementary school?

We advance backward when we concentrate our best energies and our best culture in the higher parts of the curriculum and leave the lower parts of it to be exploited by poorly educated people who may have been filled with all the prescriptions, devices, and so-called methods of a short-course normal school.

And again, who that has studied education can give a single reason why the salary of an elementary teacher should be lower than the salary of a high-school teacher?

I believe we shall all some day agree that if a college atmosphere is necessary to make a good teacher for any school it is necessary to make a good teacher for every school. I believe, too, that the true college atmosphere so much talked of by university men, is now found in several ambitious normal schools of the Middle West. Should not such atmosphere pervade them all?

The only tenable doctrine seems to be that all normal schools should, as soon as conditions will permit, raise their standards until the academic content of normal-school education will include the culture represented in a college education. Then we should have normal-school graduates (and those university graduates who attempt to teach) distributed from high school to kindergarten according to their natural and acquired traits, their adaptability, and their special preparation, some teaching in rural schools, some in kindergartens,

some in elementary graded schools of villages, some in high schools, and some filling principalships and superintendencies.

The speaker recently had his attention called to the distribution of the graduating classes in the school which he serves. Some of the graduates will enter rural schools; some, graded village schools; some, approved high schools; some will fill superintendencies in different states.

The speaker supports enthusiastically the university of his own state. He went farther than any other man in his state to urge the creation of a teachers' college in the university of his state. He urged the establishment in that teachers' college of a complete practice school from first grade to high-school seniors inclusive. That good teachers' college is now in operation. It is a stimulus to the co-operating state normal schools. It compels the normal schools to have a progressive, constructive policy so that they cannot cater very much to current demands and fashions or feel satisfied when they have copied, commended, and disseminated the practices and ideals of educational theorists past and present. Side by side with this new competition, the normal schools seek to create better ideals, to set up higher standards, to conduct more sensible experiments, and to exemplify constructively the best attainable practices in school education.

Among other Missouri experiments is a model rural schoolhouse on the normal-school campus. This schoolhouse demonstrates that a rural district can for about $1,400 have a schoolhouse offering all the comforts and conveniences to be had in any city school district excepting electric light. During the ensuing year this schoolhouse will contain a model rural school with its free textbooks, transportation of rural children, and all the other facilities that can be thought out and secured.

In brief, then, the issues or some of them are: Shall normal schools advance or stand still? Shall they be free severally to determine for themselves what they ought to do or shall they be limited in view of the designs, ambitions, and interests of other institutions? Shall they be conservative and follow the trail marked out by others, or shall they be rationally aggressive and assume leadership to the extent of their capabilities and opportunities? Shall they seek affiliation and approval by other institutions standing between themselves and the people, or shall they affiliate themselves directly with their constituents, the people at large whom they are created to serve?

There are things to be done that the people want done, things that ought to be done in the schools of our country, things that only normal schools can do. So anxious and responsive are the people in some states that they are easily led to institute and support a variety of superficial but inadequate and spurious substitutes for normal schools while the men alleged to be managing the normal schools are engaged in somnolent restfulness.

Surely none will say that normal schools should all be of one type. It is doubtful whether any two should be just alike. Surely the best ones differ from one another in many particulars. The greatest issue seems to be whether

normal schools shall remain contentedly in static condition while all the world moves, or assume an attitude of eager and inquisitive expectancy, constantly anticipating a wider horizon, greater difficulties, more responsibilities, and higher efficiency. Each normal school can have whatever it ought to have if only those in charge of it will stand up and honestly contest every inch of the ground with whatever may stand in the way. Finally, the normal schools should welcome wise counsel but always and everywhere demand freedom to do and to be whatever from their own point of view is clearly seen to be for the common good in education.

THE PEDAGOGICAL LABORATORY IN THE SCIENTIFIC STUDY OF EDUCATION

WILLIAM ARTHUR CLARK, PROFESSOR OF EDUCATION, STATE NORMAL SCHOOL, KEARNEY, NEBRASKA

The laboratory is the workshop of modern science. It is an essential factor in all scientific investigation and instruction. It is in the laboratory that science is born and nurtured. It is here that the patient investigator explores new fields or resurveys old ones; here that he critically examines phenomena and constructs schemes of thought. It is also in the laboratory that instruction is rendered concrete thru the participation of the immature student, under suggestive guidance, in the work of the original investigator. He is led to corroborate for himself the generalizations of the textbook by reproducing in abridged form the work of the explorer. The laboratory has thus two distinct functions, discovery and exemplification; or there are two distinct forms of laboratories, research laboratories and teaching laboratories, the former being designed solely for the discovery of new truth and the latter being employed in the exemplification of known truths in the process of instruction.

A pedagogical laboratory is a laboratory for the scientific study of pedagogy. It is a school for experimental teaching and is related to pedagogy as the chemical laboratory is to chemistry. It may have the two forms common to all laboratories: the research laboratory for the discovery of educational facts and principles, and the teaching laboratory for the illustration of educational laws in their practical application in the art of teaching. While the second form of the laboratory is common in the "model schools" of state normal schools, the first form is almost unknown in the field of pedagogy. It is the object of this paper to call attention to the importance of the research laboratory in the scientific study of education—to show what it is in purpose, in organization, and in experimental processes.

Before entering upon a discussion of the specific character of the pedagogical laboratory and its possibilities in the study of pedagogy, it is necessary to show that pedagogy is a science, capable of experimental study under laboratory conditions. This is the more important since prominent educational theorists have denied that there is a science of education, either *in esse* or *in posse.*

This denial to pedagogy of a place among the sciences is due chiefly to three facts, one or all of which may be present in any given case: first, a vagueness of conception regarding what constitutes a science; second, a lack of precise definition of education; and third, ignorance of what has already been accomplished in the formulation of fundamental educational principles. It will help to clear the way for a definite statement of the place of the laboratory in the study of education, if we examine briefly each of these points.

A science is an organically related body of thought originating in a specialization of interests. The separate sciences are developed in a critical examination of segregated groups of phenomena; and any distinct form of experiencing, or of life activity, may give rise to a science. The fundamental question as to the possibility of a science is, Is there a related body of phenomena of sufficient worth and interest to invite the student to constructive critical study? Sciences are styles of thought, fashions in experiencing, that are born, run their courses, and die, giving place to new sciences. Any mode or "way of looking at things" may become a science, if the facts are so differentiated and organized as to constitute a distinct phase of experience. While analysis and explanation are characteristic of all modern science, those fields in which the normative phase is predominant are no less the subject-matter of true sciences than those in which the descriptive phase is alone considered; thus agriculture is as truly a science as botany, or ethics as psychology. Also instead of the art aspect of any field of thought precluding a science aspect of the same field, it rather demands it as a complementary form of experience. The conclusion of Professor Royce in his well-known article in the first two numbers of the *Educational Review* that "Since teaching is an art, there is no science of education," would have been more just, even on the basis of his own scholarly discussion, if he had said, Since teaching is an art, there is a science of education, at least *in posse*. There is, or may be, a cognate science for every constructive art.

But granting all of these too briefly stated generalizations, what can we say of the claim of pedagogy to rank as a science? Pedagogy is the science of education. It is easy to justify this definition, if we properly define education. This term is so loosely used, even in textbooks on the subject, that its meaning must be clearly stated before it is possible to show that the matter designated can be made the proper subject of laboratory study. Education, as the subject-matter of the science of pedagogy, is the conscious direction which the more mature person gives to the life of the less mature. The fundamental idea in this definition is conscious guidance by one person of the life processes of another. There are three important implications in this statement: first, it restricts the term education to what is commonly called "formal education," that is, to purposed constructive control over the development of another; second, it regards education as a process rather than a product, the process of determining another's life toward a more or less clearly discerned goal, rather than the result of such directed growth; third, it implies that in any

strictly scientific study of education it must be viewed from the standpoint of the educator rather than from that of the person educated.

The pedagogical laboratory, whether for research or for exemplification, is a school. Its equipment includes the children and the usual material means of instruction—books, apparatus, etc. The best results of the experimental study will be obtained by conforming as far as possible to the conventional equipment and organization of good public schools. Since a very important aspect of education is the adjustment of the immature person to his physical and social environment, all teaching acts must be in a measure tested by such results. In experiments in the culture of the individual person due consideration must always be given to the fact that he is a citizen whose life must not be turned away from the conventional lines along which society is rationally directing its own life. It is only under such restrictions that the needed equipment of children can be secured for a laboratory study of education.

The pedagogical laboratories in connection with normal schools are strictly teaching laboratories, designed to exemplify known educational truths. As "model schools" proper they are laboratories in which expert teachers exemplify in actual teaching principles and processes of education for the instruction of observing students. In order that the "observers" may understand and appreciate each teaching-act its aim and procedure are explained and discussed in a conference at a later period of the day. Excellent results are obtained in this way, both in the lives of the children performed upon and in the instruction of the prospective teachers. Such "model teaching" should be given more attention than it commonly receives in normal schools at present. These normal-school laboratories are also used as "practice schools," in which the students of education are permitted to use the children and the material equipment in corroborative experimentation. Such work is very helpful, but it needs to be closely directed by the supervising "critic teacher." As laboratory material children's lives are too valuable to be given freely into the hands of blundering inexperience. It is a too common fault in our normal-school economy to degrade the laboratory school into a loosely supervised common school for prospective teachers to learn how to teach in empirically. Every teaching-act in such a school, whether for "observation" or "practice," should be in exemplification of a known educational law and should find its meaning in the cultivation of the life of the child.

The research laboratory for the study of pedagogy differs as fully in design from the "model school" of a normal school as does the research laboratory of a paint manufactory from the chemical laboratory of a high school. Its sole purpose is the discovery of pedagogical facts and laws. The equipment is in general the same as in the "model school," consisting of the children and the common educational appliances of the schoolroom. The teachers are now scientists in search of truth—not psychologists, biologists, or sociologists, but pedagogists, who, with comprehensive knowledge of educational facts already established, patiently and conscientiously

devote themselves to their special field of research. Peculiar qualifications are required for their investigations, comprising not only the critical attitude of the scientist but also the constructive touch of the artist. To accurate knowledge and scientific curiosity regarding the theory of educational aims and processes must be added artistic skill in teaching. The research student must be a teacher, sympathetic with child-life and seeking how he may, by a proper manipulation of the laboratory materials, best guide that life to its fullest self-realization. His laboratory is to be conducted as a real school in which the children are to be cultivated with the same loving care that the gardener gives to his plants. The normative phase in pedagogy is predominant; it is a "normative science," rather that a "fact science." Its fundamental laws are ethical, dealing with the influence which one free personality may seek to exert over another for benevolent purposes; and the research student must never under the impulse of his scientific curiosity lose sight of his moral obligation to the life he is guiding.

The experiments in a pedagogical laboratory are teaching acts; and to have any efficacy in the discovery of pedagogical laws they must be carefully planned and accurately performed. The teaching must have all the attributes of well defined experimentation; the conditions must be strictly controlled, and the guiding stimulation must be directly applied to the child's life, freed as far as possible from all extraneous facts. The object of the experiment must be clearly apprehended, and the guiding touch deftly applied. Teaching is influencing another's life constructively; and a teaching experiment is designed to test a chosen teaching process as such, with a view to discovering what teaching acts are most efficacious. The reaction to be watched for is a resultant enlargement, enrichment, and acceleration of the child's life. Such experiments are distinguished radically from psychological experiments, in their purpose, their processes, and their results. A psychological experiment is designed to discover facts of mental life in general; a pedagogical experiment, on the other hand, aims at ascertaining how one life may helpfully influence another in its development. In the former the interest is purely one of scientific curiosity; in the latter it centers essentially in sympathetic cultivation. The psychologist is concerned only with analysis and explanation, while the pedagogist adds to these the normative aspect due to his moral obligation to the material upon which he works. The one studies processes as they are; the other, processes as they ought to be. The fundamental method of the psychologist is experimental introspection of his own mental processes, to which he may add indirect observation of the mental processes of others, either under natural conditions or under artificially controlled laboratory conditions; but in every case, whether concerned with his own life or that of another person, it is simply the mental processes as such that are studied. The method of the experimenting teacher, however, is that of the ambitious artist, critically studying his own artistic process rather than the product. While he measures the success of his efforts by the added value in the child's life, his interest centers

more in the process of manipulation of his materials than in the reactions secured. He is engaged in a scientific investigation of the educative process, not of child-nature; and the outcome of his experiments is the discovery of pedagogical laws and the formulation of rules of the art of teaching.

It is impossible in the brief limits of such a paper as this to make any comprehensive enumeration of types of possible experiments for the pedagogical laboratory, however much such a course would appear to be demanded in justification of the writer's contention. It may also be doubted whether such a list of problems would have any practical value in advance of the establishing of particular laboratories. Each research student must formulate for himself the problems to the solution of which he would devote himself. In the present inchoative stage of the scientific study of pedagogy, when even the definition of education is undetermined, there can be no consensus of opinion as to fundamental laws or central truths, much less any precise defining of the field for experimental exploration. The pedagogist, even admitting that there is such a class of scientific students, must do what the psychologist has done in his laboratory from Fechner down, feel his way gradually to the definite formulation of problems in his separate laboratory. It would be presumptive folly for anyone to attempt to delimit the field of possible research. At most it can only be dogmatically asserted that there is such a field, and indicate in a general way something of its contour and relief. In the evolution of the race the responsibility of the more mature members for the cultivation of the lives of the less mature has been progressively recognized, and the field of education has found a place in the general mapping out of human activities. While but little attempt has been made at a scientific exploration of this field, some general features of it have been empirically determined. All of the dogmas in the schoolmaster's creed now credulously accepted need to be critically examined in the pedagogical laboratory. We need to ask ourselves anew many questions. Is it true that ontogenesis so parallels phylogenesis as to render the Culture-Epoch Theory a rational basis for a school curriculum? Is the use of the nature myths desirable in teaching young children to understand and appreciate their physical environment? Is the story overworked in primary education? Is it possible to discipline the mind apart from the content employed in the process? Is manual training essentially a matter of mental culture? And so on for scores of questions that can only be rationally answered through experimental research.

The rules for experimentation in laboratories in general apply with peculiar force in the pedagogical laboratory. The following may be instanced here:

Direct each experiment toward a single result. A clearly defined aim in the particular teaching-act is essential to any valuable result in the discovery of pedagogical truth. Indiscriminate angling for possible pedagogical facts is not practicable in this field. The rights of the children demand that every experiment be expressly for their welfare; and equally does the interest of the teaching art require well-directed procedure.

Select the educative material with the utmost care as to purity for the purpose sought

The means employed in the specific influencing of the child's life-current should be freed, as far as possible, from any catalytic or other disturbing factor.

Watch developing results with a view to modifying the experimental process at any stage. Since the experimenter is studying his own procedure, not child nature or the genesis of knowledge, he should hold the process closely under his control, ready to meet changes in his constantly active material.

Note the by-products as well as the chief results aimed at. The child's life is so complex that no purposed interference with it, however carefully guarded, can ever be seen in its simplicity. The experimenter should learn not only from the immediate results sought in his teaching-act but also from allied and secondary results revealed incidentally to his watchful eye.

Make due allowance for errors in the use of educative material. It is a common fault of teachers to proclaim "methods" as established from an apparently successful use under poorly defined conditions. The research student in the laboratory must be more conservative than this. He should keep constantly in mind that there may be unrecognized premises or missing data in all his conclusions.

Plan a series of experiments toward a total result in character. Education is the affirmative guidance of a whole life movement; and the value of a single teaching-act can be known only in a comprehensive view of the whole life. Further, education is a dynamic process, concerned with a growing entity; and the modifying influence must be progressively adapted to the developing life. Each teaching-act prepares for and demands another. The successful research student in this field must see the relation of each experiment to a possible succession of subsequent experiments. Nor is it a valid objection to such experimental study that it would be difficult to obtain children for a sufficiently long time for successful work. It would be no more difficult to secure the privilege of this extraordinary educational direction of the lives of children by expert teachers, when the real aim and value of such teaching is known, than it is for Luther Burbank to secure unlimited plant life for helpful modification.

The interests of exact educational science certainly demand that there should be established in connection with our leading colleges of education research pedagogical laboratories. Until our universities and normal schools recognize this field and possess it, teaching will continue to be the empirically learned trade of unskilled workmen rather than the artist life of the well-equipped specialist. The laboratory will do for pedagogy what it has done for every other modern science in which it is employed.

AGRICULTURE IN NORMAL SCHOOLS: COURSES OF INSTRUCTION AND FINANCIAL SUPPORT

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It is no longer a question whether state normal schools shall serve a course in agriculture in their educational menus. The normal schools are established to prepare teachers for our public schools. Whatever should be taught in the public schools must appear, and necessarily should first appear, in the curriculum of the normal schools.

Agriculture is already required in the elementary schools of several states, and is taught in many of the schools of other states. It will very soon be a required study in the elementary schools in every state in the Union, and

whether we wish it or not the normal schools must prepare teachers to give this instruction. It will soon be as absurd not to prepare teachers to instruct in agriculture as in geography, or in physiology.

It is no longer a question whether we shall serve the course but just what, and how much, shall be served, how much time shall be allowed for its mastication, where in the menu it shall be served, what equipment is necessary to make it digestible, and from whence the wherewithal to serve a respectable, palatable, and digestible course. These are the questions that confront us.

For my report for the Department of Agricultural Education and Rural Schools at this meeting I received personal letters from state normal schools thruout the United States, and found that of the ninety-one reporting, sixty are giving courses in agriculture. They are serving the course in varying amounts and in various combinations. Some dish it up successfully with nature-study. This is an excellent plan, providing enough agriculture is given to sustain life. The trouble is that only the observational phase of agricultural education is apt to be emphasized.

Some serve agriculture with school gardens, making the garden the base. This brings good results, the only drawback being that all farm interests cannot be emphasized. This plan is especially adapted to city conditions. Professor Shaw, of Rochester, N. Y., has been very successful in this work and has created a desire among children to beautify back yards, well shown in some attractive photographs which he inclosed. Susan B. Sipe, of Washington, D. C., reports,

> We have aroused a remarkable enthusiasm thruout the city on the subject of gardening. The children have purchased 160,000 penny packages of seeds. It has resulted in extensive home gardens and civic improvement.

Some combine agriculture with the science courses. The danger in this is that it is likely to be too technical, and give material that the elementary school children will not be able to digest. The only normal school I have known to fail in giving agriculture did scientific teaching. San Diego, Cal., seems to be successful by following the sciences with agriculture, but they mix it with experimental work. Valley City, N. D., proposes to culminate zoölogy in animal husbandry and botany in elementary agriculture. Undoubtedly they are practical, but it would be better to let animal husbandry culminate in zoölogy, and plant propagation in botany.

We used to begin geography with teaching definitions of geography, the equator, the ecliptic. We went to the north pole, led the children out into the universe, viewed the solar system, and observed and reasoned about the revolutions of the earth upon its axis, then we alighted on Europe and went into Asia and around by Africa and sailed around Cape Horn, explored South America, and finally landed at Boston and came slowly across the continent and at last reached our own state and sometimes even our own county. But now we begin at home. Must we go through this same process with agricul-

ture, or will we learn something from our past experiences and use a little common-sense?

I believe with President Stewart, of Salt Lake City, and Professor Randlett, of North Dakota, that agriculture and its allied subjects should be the center of correlation and should strengthen and vitalize the entire public-school curriculum.

The central thought in this whole discussion, the one idea that I wish to be indelibly stamped on the mind of every educator in the United States is, that new studies are not wanted in the public schools but a different viewpoint for the old studies.

But, of course, until we can have our whole system changed so that it will begin with home environment, and until we can make agriculture the center of correlation and lead from that to composition work, geography, history, chemistry, and physics, it is well to do as President McFarland, of Valley City, N. D., and President Corbley, of Huntington, W. Va., suggest—turn all the sciences to agricultural account.

Some give a course in agriculture using only the text, being so handicapped that they have neither garden plots nor even laboratory experiments wherewith to salt it. Above everything the work should be practical. The National Educational Association Committee on Industrial Education in their report of 1905 are emphatic on this point. "The work to be given in the normal schools should not be confined to a study of textbooks but provision should be made for the carrying on of observations, experiments, and practice work." I believe that nothing will be so fatal to this movement as the use of the textbook only with its "cut and dried" lessons.

Some of the schools are giving extremely practical work. Among these is Normal, Ill. President Felmley writes:

> Five years ago we opened a school garden of two and one-half acres. The work has assumed each year more of a strictly economic and agricultural character. In the school garden we grow, (1) every sort of garden vegetable that is grown in our state; (2) we have practically every kind of flowering annual cultivated for its flowers; (3) we have grown each year patches of the chief field crops of the United States; (4) last year we paid special attention to corn, experimenting with cross fertilization and commercial fertilizers . . . . For the last year we have occupied a greenhouse with 2,800 feet of floor space. There we tested twelve bushels of seed corn. The children make cuttings of roses, etc. When they are rooted in the sand they transfer them to small pots. They themselves sow the seeds of many plants in the starting-boxes and transplant them after germination. The season has been cold and backward, but on Monday next we expect to set out in our school garden several thousand plants that are now in the greenhouse. We are distributing to all of the childen of the model school aster seed of three varieties which we expect them to plant at home, and we are offering a series of prizes for which the children will compete in the flower show in September. Each child is, also, furnished with six tomato plants which he may plant on his home grounds to compete for prizes. For the next two years we are planning, to grade the work of our school garden in such a way that the children in the first grade and kindergarten, for example, shall be busied with onions, lettuce, radishes, etc., that each year shall have its own group of plants. We expect to make good celery-growers of our eighth graders.

Beginning in September next we shall lengthen this course in elementary science from twenty-four weeks to thirty-six for our normal students, and shall make this work furnish the content for English composition.

New Paltz, N. Y., has carried on experimental work in its own gardens, using cultures procured in Washington. They say further,

The flax industry has also been carefully studied by raising the flax on our own grounds and passing it thru its various forms from raw material to the finished product. Poultry-raising has been carried on for several years, the children of the grades using incubators and brooders and articulating this work with their lessons in English, history, art, etc.

Rock Hill, South Carolina, is the only normal school, of which I know, that has a dairy. There are a number of schools that mention study of stock on nearby farms, among them Stevens Point, Wis., Warrensburg, Mo., and Cheney, Wash. At the latter place Professor Hungate is working to make the course especially practical. They have three courses.

In the elementary course we take up soils and their treatment, including conservation of moisture, irrigation; proper methods of budding, grafting, slipping; wheat and fruit culture; injurious insects and fungi affecting fruit and grains of this locality; animal husbandry, including some work in stock-scoring, and testing of various milks. All the classes work in an experimental garden on original problems, and are taken on trips to visit dairy and wheat farming, do practical work in pruning, and observe spraying work of nearby fruit-growers. We are going next week to visit the Hazelwood dairy farm ten miles from here. Forty people are going.

President McFarlane, of Brockport, N. Y., writes:

Within the next two years we expect to lay out gardens on rather an extensive scale and to follow up systematically thru the grades of our training department, and with the students in the normal courses, school-gardening work. We expect to raise vegetables which may be stored in our building and used in connection with our domestic-science courses. It is our hope and intention to make the work of manual training, thru the construction of hothouses, boxes, crates, etc., contribute directly to securing results in our school gardening, and to make this gardening contribute to the work in domestic science, and ultimately to make this domestic science a satisfactory and acceptable noonday meal for the students who take their dinners at the building.

In these illustrations the scope of the subject-matter to be presented at normal schools is suggested. In a word I would say that it should include all the activities of farm life.

Even normal-school students need some time to masticate this, but some of the schools are limited for time and must require their students to bolt it down in great unprepared chunks. The schools feel this keenly. Those that have but ten weeks' time, the Wisconsin schools, for example, are crying for more time. The length of term varies from ten to thirty-six weeks. Twenty weeks is little enough, and until schools shall have had training in agriculture in the elementary or high schools a year is very necessary. We might save time as some suggest by uniting with this composition work. Kirksville, Mo., has a year. So have we at Weatherford. This work should be required in all our normal schools. It is absurd to make it optional when it is soon to be required in all our elementary schools.

Where in the course ought agriculture to be given? Since hundreds of students return to the rural schools after one year's normal work a course should be given in the first year as we have planned it at Weatherford. In addition to this year's work, in the senior year students should direct this work in the training-school and make a study of its pedagogical value.

Mrs. Price, of Florence, Ala., who sends in a most excellent report, regrets that the course is given so far from graduation, but it may not be so much to regret after all. If she can get the work into the practice-teaching as she hopes to do, it will be better, and when she makes it permeate all grades she will have quite the ideal condition.

Some of our educators are trembling for fear we will carry this wo k too far, and supplant the work of the agricultural colleges. There is no desire on the part of normal-school men to supplant the work of the agricultural college any more than in giving courses in physiology and hygiene they desire to supplant the work of medical schools and training-schools for nurses. The normal schools are not preparing scientific agriculturists any more than they are preparing physicians and lawyers.

President Scudder, of New Paltz, N. Y., makes this very emphatic.

> Our wish is that on our new school grounds there may be represented most of the activities of farm life, the aim being not to make expert agriculturists of our teachers in training, but to interest them in the farming conditions of the country, making them intelligent about farm life in its various phases, and showing them how work can be carried on at the school to reflect the interests of the neighborhood, but still more how the children may be induced to do more careful and intelligent work at their homes under the immediate guidance of their parents. The country school-teacher should realize that the home may be added to the school and the teaching force be tremendously augmented by calling occasionally on the parents to give talks on topics in which they are particularly interested, to supervise experiments that may be carried on by the school and to give practical lessons to little groups of children not necessarily in the school itself but at the different farms in the neighborhood; for in a real sense the barns and fields of the neighborhood are the real laboratory of the country school.

Just how much equipment is necessary to give an intelligent idea of farm life is a question for discussion. Many of the schools are carrying on work with garden plots ranging a few square feet to an acre or more. Bridgewater, Mass., has seventeen acres for field crops at their disposal, with one and five-eighths acres in a scientific garden. Greeley, Cal., has four acres. Salt Lake City has a little farm of six acres. Weatherford has a forty-acre campus; ten acres is free for experimental work. Spearfish, S. D., has seventy acres which they have been using to excellent advantage. Normal, Ill., has 160 acres and others have fine tracts. A few schools are equipped for poultry-raising, and Rock Hill does dairying.

For the needs of the school many express themselves as President Dearmont, of Cape Girardeau, Mo.:

> The school should have a farm of not less than fifty acres, and experimental work should be done in crop-raising, fruit-growing, gardening, stock-raising, dairying, poultry-raising, etc.

All state normal schools should have laboratories, gardens, and greenhouses, and those more favorably located should have a small farm for carrying on the farm activities suggested by President Dearmont. I might add bee-keeping for some sections. I question the practicability of stock-raising, especially if, as Professor Upham, of Whitewater, Wis., suggests, arrangements could be made with some nearby farm for such study. However, in many sections milk and its products should receive a careful study.

It is true that we need equipment just as surely as we need skeletons, manikins, models of the eye, etc., for the teaching of physiology.

The question is how to secure the necessary funds. We might charge tuition, but why should we charge tuition for this subject more than for others. Many feel that the aid should come from the national government.

The government has aided agricultural colleges for the purpose of making the farmer and his family more intelligent and enabling them to reap more abundant harvests. The money has been well spent. No one would minimize the great work accomplished by the agricultural colleges of the United States. But on the other hand, no one will deny that the lives of the American farmers are influenced more surely and more quickly thru the public schools than by any other means. The same amount of money properly expended in the normal schools will accomplish more in ten years to popularize agriculture than has been accomplished in the last thirty years by trying to instruct the farmer directly. The agricultural college must wait for the students to come to them, while the normal schools send their students to the children and the homes in every nook and corner of our land.

Whatever principle justifies the national government in assisting agricultural colleges applies with double force to assisting state normal schools. Normal-school men and citizens of many states have been so convinced of this that they have attempted to secure national aid, and two years ago the Burkett-Pollard Bill was introduced into Congress for this purpose.

Congress, in the Nelson Act, approved March 4, 1907, has given assistance to agricultural colleges in the preparation of teachers to give instruction in agriculture and mechanical arts, amounting to $5,000 the first year, and increasing until it reaches $50,000 annually. Surely if the national government aids agricultural colleges to prepare teachers it should aid normal schools to prepare teachers. This arrangement to give courses at the agricultural colleges does not meet the requirements of the case because it is impossible for the majority of young people to take special work at agricultural colleges in addition to normal-school training, and if the agricultural college is to give all of the training for the teacher, then wherefore the normal schools?

We find that some agricultural college men feel that the government is already furnishing all the aid it should. If that is the case, then the agricultural colleges might furnish men to give courses at the normal schools, and they might establish co-operative experiment stations, as at Macomb, Ill. President Bayliss writes:

The Soil Experiment Field is co-operative and is conducted by the University of Illinois and our state normal school. They prepare the plans to be used in conducting the field experiments and we take full charge of the field operations. Such co-operation provides for both scientific and educative values in the work and it is proposed to make the results as far-reaching as is possible, not alone to teachers, but to those interested in agricultural methods and results.

These questions confront us: Shall we ask agricultural-college men to give courses at our normal schools? Shall we have co-operative experiment stations with the agricultural colleges? Shall we ask Congress for direct aid?

DEPARTMENT OF MANUAL TRAINING

SECRETARY'S MINUTES

FIRST SESSION.—Tuesday, July 8, 1907

The department met in joint session with the departments of Elementary Education and Art Education in the First Methodist Church, Los Angeles, Cal., and was called to order at 2:30 P. M. by the president, Frank M. Leavitt, assistant director of drawing and manual training, Boston, Mass.

August Ahrens, director of manual training, State Normal School, Warrensburg, Mo., presented a paper on "The Development of an Adequate Course of Study in Manual Training for the Elementary Grades" from the point of view of the teacher of the manual arts.

Fletcher B. Dresslar, associate professor, Department of Education, University of California, Berkeley, Cal., discussed the same topic from the point of view of child-study.

Mrs. Alice Woodworth Cooley, president of the Department of Elementary Education, introduced Chas. H. Keyes, supervisor of South District Schools, Hartford, Conn., who discussed the topic from the view-point of the school superintendent.

Thomas A. Mott, superintendent of schools, Richmond, Indiana, led the general discussion and was followed by L. E. Wolfe, superintendent of schools, San Antonio, Texas; Cree T. Work, president of College of Industrial Arts, Denton, Texas; Miss Emma C. Davis, supervisor, public schools, Cleveland, Ohio, and Arthur H. Chamberlain, Dean of Throop Polytechnic Institute, Pasadena, Cal.

The chair then appointed the following committees:

ON NOMINATIONS

A. H. Chamberlain, Pasadena, Cal. B. W. Johnson, Seattle, Wash.
Pehr Nilssen, Waltham, Mass. Grant Karr, New York, N. Y.
C. W. Kent, Los Angeles, Cal.

ON RESOLUTIONS

C. M. Miller, Los Angeles, Cal. Ada Blanchard, Los Angeles, Cal.
August Ahrens, Warrensburg, Mo.

SECOND SESSION.—Thursday, July 11

The department met at the First Methodist Church and was called to order by President Leavitt, who made brief introductory remarks on the general topic, "The Relation of Industrial Education to Public Instruction."

B. W. Johnson, director of manual training, public schools, Seattle, Wash., discussed the subtopic, "Manual Training versus Industrial Training in the High Schools."

Jesse D. Burks, Principal of the Teachers Training School, Albany, N. Y., discussed the subtopic, "Can the School Life of Pupils Be Prolonged by an Adequate Provision for Industrial Training in the Upper Grammar Grade?"

The subtopic, "Industrial Training as Viewed by the Manufacturer," was discussed in a paper by Magnus W. Alexander, engineer in charge of drawing-office, General Electric Co., Lynn, Mass., and vice-president of the National Society for the Promotion of Industrial Education.

The Committee on Nominations presented the following report:

For *President*—Jesse D. Burks, Albany, N. Y.
For *Vice-President*—Anna C. Hedges, Brooklyn, N. Y.
For *Secretary*—William E. Roberts, Cleveland, Ohio.

The report was accepted and the nominees elected.

The Committee on Resolutions presented the following resolutions, which were adopted:

WHEREAS, The accumulative work of the department during the last two years seeking a more rational statement of courses of manual training, seems now to indicate a necessity for some definite work by a special committee; be it therefore,

Resolved, That the manual-training department of the National Educational Association, now in session, recommend the appointment of a committee for the purpose of collecting data of the manual-training work done thruout this country, that suggestive courses adaptable to various conditions found therein may be formulated by them.

Resolved, That this committee consist of three persons now actively engaged in manual training, with power to add to their number a superintendent of schools, a teacher of art, a child-study specialist, a grade teacher, and a representative from such other departments as may be deemed advisable to increase the efficiency of their work.

Resolved, That the aforesaid committee of three be appointed by the president of this department.

Resolved, That this committee be appointed for a term of two years, being requested to make a preliminary report at the next meeting of this association.

Resolved, That a committee of one be appointed by the president of this department to make formal application to the board of directors of the Association for an appropriation to defray the expenses of the committee.

THIRD SESSION.—FRIDAY, JULY 12

The department met in joint session with the Department of Indian Education.

Elbert H. Eastman, director of fine and industrial arts, Brigham Young University, Provo, Utah, read a paper on "Rational Art and Manual Training in Rural Schools."

M. Friedman, assistant superintendent, Haskell Indian Institute, Lawrence, Kansas, presented a paper on "Manual Training in the Indian Schools."

Miss R. M. Hodge, teacher of manual training, public schools, Los Angeles, Cal., discussed the topic, "The Relation of Primitive Handicrafts to Present-Day Educational Problems."

The president then appointed, in accordance with the resolutions adopted at the second session, the following committee.

ON INVESTIGATION—

B. W. Johnson, director of manual training, Seattle, Wash., *Chairman*.

Howard D. Brundage, supervisor of manual training, Menomonie, Wis.

Miss Euphrosyne Langley, associate in manual training, School of Education, University of Chicago, Chicago, Ill.

Cree T. Work, Denton, Texas, was appointed to make application to the Board of Directors for an appropriation to defray expenses of the committee on investigation.

The department then adjourned.

AUGUST AHRENS, *Acting Secretary*.

PAPERS AND DISCUSSIONS

THE DEVELOPMENT OF AN ADEQUATE COURSE OF STUDY IN MANUAL TRAINING FOR ELEMENTARY GRADES

I. FROM THE POINT OF VIEW OF THE TEACHER OF MANUAL ARTS

AUGUST AHRENS, DIRECTOR OF MANUAL TRAINING, STATE NORMAL SCHOOL, WARRENSBURG, MO.

An analysis of the topic as worded implies that we develop a course of study in manual training in terms of exercises and tool practices, and that we give reasonable attention to the adequacy or the inappropriateness of the materials commonly used in construction. The present status of manual

training in this country indicates that along these lines we have been very successful in developing our courses. It is maintained that an attempt to organize a single course of study in terms of tools, materials, and exercises would be of small avail and add little to the further development of this department of educational activity. It is moreover maintained by our advanced thinkers that greater good will result if special attention were given to the problems demanding consideration in different sections of the country, and courses rich in material suggestiveness be developed rather than one single course.

I am not in sympathy with any attempt made to formulate at this time or at any time a set course of study to be held up as a model. It would be most unpedagogical to do so, and in fact quite unnecessary. All we can hope to accomplish here is the formulation of a statement of principles, by which any attempt at systematizing handwork may be guided and the educational value measured. You will agree with me that hard and fast rules cannot be laid down governing all schools, regardless of needs and conditions which prevail in different localities.

The conditions that manual-training organizers meet are so changeable that we cannot "fix" anything. There is no such thing as fixation. In science the knowledge of yesterday gives way to the discoveries of today. Creeds are being changed to harmonize with a new social order of things. Progress is the keynote in all departments of thought and activity. Progress must characterize education as well. New conditions demand new practices, and practices must be in accordance with the signs of the times. In manual training as in no other department of education we are dealing in a very intimate manner with children, their environment, and the conditions under which they are to be educated. We must if our work be truly effective suit the work to our local conditions. What might be found a justified practice in one community would not meet the requirements in another. The work must be adapted to the child, not the child to the work. In times past we have aimed to make clothespins of an approved pattern. We have adopted bodily courses "made in Germany" and forced them upon altogether different types of boys and girls for whom they were not designed. It is expedient for us to make no attempt to formulate a course of study and call it "the one." However applicable a course might be for one place, the different conditions at another would not be met by it.

Important as a consideration of tools and equipment may be in determining a course of study; important too as exercises and problems may be and the many technical details that perplex the teacher; vital as these are in shaping and giving content to manual training on the material side, it is for us to restrict our consideration to the principles which make manual training truly worth while, and which secure for it a recognized place on the school program. Unless a course in handwork is based on these principles it appears to me our efforts are quite useless.

An intensive study of manual training or even an incidental visit to the usual lesson in manual training cannot fail to convince one that many of our efforts are valueless and that much of what is claimed for it can be questioned. Why is this so? Why this doubt of the efficacy of manual training even on the part of those most interested? Is it due to the fact that we have not brought the philosophy down from the clouds and made it practicable? Or is the pedagogy of handwork understood by the elect few, while the application of the principles is left to the uninitiated? Certainly the limited meager training possessed by a great many teachers accounts for the sharp criticism provoked against manual training by Bruce R. Payne, of the University of Virginia. He says:

> Comparatively speaking, the most uneducative, the most unpedagogic, the most unreasonable subject taught in American elementary schools today is handwork in any of its forms. Observe whatever recitations you please and you will have the privilege of witnessing one which to a large extent is void of real thought, void of pedagogical principles, void of reason upon the part of the pupils, but abounding in dogmatism, disconnected facts, with an abundance of doing, but with no conscious theory in the doing.
>
> The child's reasoning faculties are not seriously applied in the process of learning. He is not given a large principle to reason out in its details but is simply left to follow in the most servile manner such directions as are given him. The training of the pupil is not the chief idea in this process. Until the teacher has a thought in mind and succeeds in getting that thought into the child's mind, all handwork amounts to nothing but a mere handling of tools and materials. Handwork is not properly educative until the doing upon the part of the teacher and pupils is the conscious application of a clearly conceived theory. So long as it is conducted upon any other basis than this the teacher is nothing more than a carpenter, a seamstress, or a cook.

Is this a true picture? In part I think it is. And what is more to be regretted handwork is but an element for display, a show, a mockery of sincerity of purpose. The same writer further says:

> This attitude and method is unpedagogic and uneducative for no stress is laid upon the rich field of thought represented by the many phases of handwork in vogue in our schools. They do not lead the pupil to sympathize with the great fields of real life from which things are taken. He may be prepared for doing a certain thing, but is not prepared for life at all. In fact all this kind of teaching does not look so much to the growth of the learner and the needs of society, but to the skill in rapidity and the production of a finished article. The pupils thus trained never do much more than the actual performances taught them in the school, for the power to reason in general or in particular is not trained at all.

I offer no apology for quoting Mr. Payne at length. While he has overdrawn the picture we must admit there is more truth than fiction in what he says. It is not for us to condemn the worst, and still the worst pursue, but it is in the light of systematic examination, consideration, and deliberation to discover, if we can, the basis upon which it rests, the end which it serves, and the means and methods best suited to accomplish those ends. When our various courses of handwork are subjected to an analysis as indicated above, we can assign them to a legitimate place in the curriculum. And this formulation will not be the work of any one person in any one place, but it will be the

fruitage of all interested in this particular phase of educational effort. Only by patient, earnest, original, and systematic examination and experimentation can we contribute to that body of thought and activity for which the term manual training shall stand.

What can we advance as the basis of manual training? I would have you conceive that the main definite end of manual training for the individual is the systematic training of the hands in constructive work thru the instrumentality of tools and the manipulation of materials. Manual training is physical training and as such must be systematically taught in order to get any return worth the effort. It is intellectual training in that it imparts a knowledge of tools, materials, and processes. This knowledge added to systematized physical training should make for power and efficiency in social and industrial service, in so far as the individual can participate in such service. The basis of manual training is educational.

How is the educational value of any course in manual training to be determined? The educational value of any course in handwork is not to be judged solely by the character of the things constructed. Only in the way the exercises contribute to the child's future development, all his life, are they to be judged. In what the exercises teach of ways and processes of doing, the nature and characteristics of the materials used in construction, have they any value. If they do not connect very directly with anything in practical life and contribute to an understanding of industrial and social facts and forces, and at the same time make for social and industrial efficiency and well-being, it were better to abandon manual training and substitute something in its place.

What is the aim of manual training? This is an old question, one nevertheless to be uppermost in our minds in shaping courses of study. The completed exercise is not an end in itself, but is simply the concrete approach to an end. The object affords skill in the manipulation of tools and materials, and makes for power. By skill is meant growth of power and control over the things of the mind and hand in any form of useful effort. Intelligent and systematic training makes for skill and power which is no mean accomplishment.

A good course in manual training is characterized by orderly sequential growth and development. As a rule manual training departments in public schools are conducted in a go-as-you-please, slipshod, aimless, and almost purposeless manner. Like infinity, "beginning everywhere and ending nowhere." Skill is a matter of growth, and growth comes thru systematic, intelligent exercise and training. Skill means knowledge of technique, but it is not the end and final aim of a course in manual training. To quote Professor Chamberlain, "I would have technique, but if it had to be gained at the expense of producing boys with individuality gone, with independence dwarfed, and power and leadership undeveloped, I would bury technique and look for soul."

An adequate course is a flexible course—adequate because it lends itself to individual initiative on the part of the pupil, permitting of planning and

execution along original lines, to the end that the pupil may fully enter into that deep and lasting joy which comes when he has thought out something, created something entirely his own. Such a product is an art product, for art is the expression of joy in work.

The well-rounded course in manual training requires a psychological basis to insure its educational fulfillment. The work for any one grade will be determined by the nature of the child to be taught, that is by his mental and physical needs and capacities. At different stages of his growth and development these factors will need to be taken into consideration. Boys and girls will have to be regarded as totally different beings. It is an error to train both along the same school lines generally.

In the future more than in the past the child's native interests will be taken into consideration. The course will not, however, grow out of the fleeting, spasmodic, and temporary impulses of childhood into a fragmentary, unrelated scheme of work, but temporary interests and needs will be wisely directed and shaped toward purposeful and permanent ends.

In addition to individual interests, aptitudes, and needs, education and training will have to reckon with social, industrial, and agricultural demands as they reflect and in turn act upon local conditions and real life. The strongest kind of relations should be established between the school and the social life of the community. The establishment of such relations affords opportunity for the study of typical industries and occupations in the world at large and serves as an introduction to the history of their development.

In this particular our courses are the weakest. We have succeeded well in bringing into play tool practice quite representative of the best performance in actual industrial occupations, tho by no means in all instances. Technical facts have not been safe in the hands of teachers. The social aspect has been most seriously neglected. No greater function can manual training have than to put the child into possession of its social inheritance, for he ought to fully sympathize with men and women engaged in industrial pursuits and occupation. The child should know society as it knows the things society has need of. Our manual-training courses should seek to establish this larger relatedness with many-sided life.

Reality does not always characterize the type of article made. The chief idea evidently is to emphasize doing at the expense of consistent execution by well-defined means and methods. A random selection of isolated problems lends itself to this idea, at expense of consistent thought-provoking exercises. The natural development of the powers of the child are sacrificed for the finished product intended for display. The finished product we must have. Simplicity, structional beauty, and appropriate design will prove its artistic merit and value. At the same time it will stand the embodiment of conscious doing, the expression of well-conceived plans and purposes. The art-craft movement with its sane and wholesome ideals will find expression and give color especially to the work in the upper grades.

The planning, the execution, the finished problem will lead the child from the immediate work at hand to a vast field of related and highly educative matter found in books and the realms of science and industry. Why should not the mutual ramification of subject matter composing a body of thought as valuable as history and literature, perhaps more cultural because more humanizing—bearing so intimately upon many-sided life, represent a body of thought and action as dignified as any of the older school studies and as truly educational? Why does it not command more serious attention from all school officers and grade teachers? Why is it so often the fag end of the school work? The reasons are evident in the criticisms I have read. We cannot lay claim that the short time allowed handwork and the position it holds in the school program is evidence of a non-progressive school board and an unappreciative attitude on the part of grade teachers. Rather must we cast out the mote which is in our own eyes to see clearly the beam which is in our neighbor's eyes. It is true nevertheless that if we hope to accomplish what we believe manual training can accomplish more time must be awarded it. A stronger appreciation must be developed, ample equipment and suitable materials must be provided.

To organize and keep in operation an adequate course in manual training needs for its final fulfillment earnest, sincere, intelligent, progressive, hearty co-operation from all school officers and teachers. Sympathy for manual training should not be fostered to further selfish ambition or magnify the position of any teacher directly concerned with its organization and administration. The work must live for the boys and girls who are to be educated by it. When this is done and when its educational basis is fully recognized and appreciated then "all things shall be added unto it."

This presentation may appear somewhat dogmatic. I at least wished to get before you certain matters, and I presume that if there is anything conclusive about what I have said the following summarization can be made: An adequate course of study is one which

1. Aims to be truly educational and imparts to the individual knowledge and power that makes for social and industrial efficiency and well-being.

2. Takes into recognition the psychological and physiological life of the individual at each stage of development and the differentiation of the sexes, and adapts the work to the needs and capacities of each.

3. In so far as practicable will correlate with the industrial or agricultural occupations of the community and the interpretation of the same.

4. Will assert its greatest merit in a large way by the wholesome, well-arranged, well-defined, clear and distinctive body of thought and activity made directly applicable to the pupil thru the instrumentality of tools and materials, and finished product.

II. FROM THE POINT OF VIEW OF CHILD-STUDY

FLETCHER B. DRESSLAR, ASSOCIATE PROFESSOR OF EDUCATION, UNIVERSITY OF CALIFORNIA, BERKELEY, CAL.

Manual training is an expression variously used and variously interpreted. Without taking time to enter into details of these differences, the point of view here taken will be this: Manual training in its larger and, for the future, truer sense, means learning how to enter into organizing activity with the hands. It will be seen at once that this definition is not meant to make sharp distinctions but to call attention to the wider educational outlook for this much-discussed subject. In the first place, it includes plowing as well as sloyd; gardening as well as carpentry; digging in the ground as well as printing; feeding and caring for stock as well as work in metals; milking cows as well as making boxes ; making hay as well as making furniture; caring for fruit trees as well as making a toy train; playing ball and tennis as well as upholstering; learning to drive nails as well as to sew; making garments for people as well as for dolls; cooking as well as crocheting; planning a house as well as trimming a hat; spinning and weaving as well as cutting and making; climbing trees as well as rope ladders in a gymnasium; swimming as well as knitting; washing fabrics as well as darning; disinfecting as well as making puddings; in short coming into active participation with all those fundamental and useful occupations which competently educated people must know about and appreciate in a vital and definite way, in order to understand the work-a-day world and the various forms of manual labor. Most people lack in breadth and depth of useful experience to knit their souls together and to give them a point of view worthy of modern demands.

As I have indicated, I am going to use this term manual training in the broadest possible way, because I am persuaded that the most serious hindrance to practical education in this direction has come through the illiberal attempt to make it synonymous with handwork in wood, iron, or some sorts of workable materials. Imitating sloyd models, whether in wood or cardboard, is all right, as far as it goes, but it does not go very far. Making furniture and working with iron are very helpful processes, but they must not be considered other than useful forms of many kinds of manual training. And so with all the rest of the valuable lines of work suggested and carried out in some of our best and most helpful schools. And without further introduction may I plunge into the subject as I conceive it, and as it has been made plain to us thru the results of physiological investigations and the growth of our knowledge of child-nature.

In the first place it is fundamental to see that growth in consciousness is a direct result of the growth in the widening and organizing relations of sensory stimulation to motor response; likewise that a diminution of consciousness accompanies the growth of habitual responses made to a given set of sensory stimulations. For the most part we are not conscious of the movements of our limbs while walking, because the whole process has become so habitual and the flow of sensory stimulus over into motor excitation is not retarded or

prevented by having to overcome the native hindrances which once existed between the sensory and motor parts involved. But we have a right to say that the baby during the process of learning to walk is tremendously conscious of almost every movement involved in the process. Without further illustration, let us extend this notion to the learning or elaboration of any muscular adjustments. Consciousness is keen and vivid and radiant only at those times when the stimulations toward behavior, whether ideational or external, meet with resistance in passing over into their proper response. With the child in its earlier years the sensory or external stimulations play a much larger rôle than they do as life and organization harmoniously progress. That is to say, the conscious life of a child is far more dependent upon its immediate external environment and the demands of this environment, than upon the ideational products of reactions already organized. Now I submit that this is the fundamental doctrine about which all our programs of manual training should be organized. We must begin with the organization of those important muscular processes which are most readily called forth by objective stimulations, and gradually and in accordance with the growth of internal relations, proceed to work from and under the guidance of ideal stimulations. Of course these two processes are more or less united in all we do, but we must see to it that the natural and present value of each is properly estimated. But we should remember not to minimize the first. This precaution is especially necessary because the teacher has reached that degree of organization in which the ideal has become predominant.

But how, you ask, can this principle guide us in the active work of manual training?

1. It operates to vastly broaden the outlook and to expand the boundaries of our usual notions of a course in manual training. And what I am saying has reference chiefly to the grades, though it operates also in the higher reaches of schoolwork.

2. It will make clear why it is better and more helpful in the early school years of children to cultivate responses to those demands upon us that look toward natural and real work than to waste time and introduce difficulties by passing over into the field of the imaginary. It says in plain terms that learning to mow a lawn or plant a tree, to play tennis or drive a horse, to build a fence or cook a meal, is a more natural demand for organized behavior than learning to manufacture cornucopias out of cardboard or to make a never-to-be-used corner bracket out of wood. In the former the action demanded is an adjustment to external and variable stimulations, keeping consciousness keyed up and hence giving evidence every moment that the thought circuit is complete.

Mind has no significance save as a guide to behavior. If there were nothing to do, learning and teaching would be useless. Hence it follows that all learning in its final analysis can justify itself only when it clearly establishes its right to exist as a necessary help to worthy behavior. Ability to react wisely and well is always based on adjustments between power to understand and power to perform.

The world of today with its myriad of transformations sets the standards; we cannot escape it if we would. Man must be more widely and clearly adjusted to the work he is now called to perform. And there is no royal road to this sort of adjustment. Mind and body can grow and develop into harmonious and useful relationship only thru action and reaction. The only way to organize motor and sensory is by doing things under the guidance of conscious intention, and correcting our understanding thru the consequent enrichment of experience.

The normal education of every child has taken this path from the beginning. Day by day, year by year, and century by century, children have been showing forth the needs of their lives by doing their best to exhibit the fundamental and necessary unity between thinking and doing. Despite this, schoolwork is still unnatural and largely artificial. And some of our manual-training work is the most artificial of all. Physical organization for worthy purpose is emotional training for worthy behavior; ability to do things well and beautifully is a fundamental condition for the satisfying feelings of capability and artistic power. He who does not know how to do, and cannot image thru the experience of having done many things, cannot enter into the spirit of humanity and appreciate how the people think and feel toward the duties it falls to their lots to perform.

In the second place, manual training is emotional training. By this statement I do not wish to narrow the discussion to that phase of the work where especial emphasis is placed on the making of some beautiful form or combination of forms. This is important, but I wish here to call attention to a deeper and a more serious problem. I believe it is pretty thoroly settled that emotion is the resulting state of consciousness growing out of present muscular activities or tensions, or the memory of the feeling resulting from like activities and tensions referred to the past. That is to say, our feelings are largely the outcome of possible muscular behavior which has been racially or individually established. Whenever, therefore, we enlarge thru manual training the sum of muscular adjustments possible to children or adults, we thereby directly affect their emotional lives. When these activities are directed along useful and liberal lines, the emotions are thereby broadened and deepened to greater responses in corresponding directions. If this be true, and the burden of evidence favors it, do you not see then that inability to adjust one's muscular nature to the objective and subjective demands of life in a many-sided way, would of necessity operate to limit the emotional life to its minimum, and this minimum would consist almost entirely of the emotions arising from instinctive and reflex behavior.

This minimum would not only lack the refinements of modern enlarged power and capability, but it would smack too largely and exclusively of those primitive protective adjustments begotten under the demands of an inferior social order. Richness of emotional life can never come to a specialist whose broader preparation does not include many-sided physical capability and

manual experience. I am persuaded that there would come a decided increase of interest in all our formal teaching and bookwork if we would see to it that children come to these tasks thru a broad and liberalizing touch with the world's work and play. Richness of physical powers and capabilities are essential conditions for richness of feeling and its educational accompaniments.

> The very great capacity for learning by experience rendered possible by the vast mass of nervous elements not congenitally organized, distinguishes the mind of man and raises it immeasurably above that of the highest animals.[1]

In the next place, manual training is mental training. This has been iterated and reiterated during the last fifteen years until the school men of the country know it thoroly. But the average parent doesn't look at it so. The best way still to appeal to them seems to be from the economic possibilities of the subject. We therefore need to clear up the subject with the people and show them that the largest value is not to accrue from that sort of emphasis, tho there are decided values here.

I am thoroly persuaded that we need an organized movement in favor of larger opportunities for play in connection with our schools, more than we do for sloyd or carpentry. We need more vital touch with productive agriculture and horticulture than we do with ironwork. These statements are made, and held to be true, because these activities are far more natural and a thousand times more necessary for all, than are those with which they are contrasted. It seems to be a very difficult thing to get laymen to realize that nature would often lead us in a better path if we would only follow her guidance. I hope I shall not be misunderstood. I am not opposing sloyd or carpentry as such, but striving to present relative values made very plain to us by the results of child-study and physiological investigations. Normal growth of brain and muscle sets the standard, rather than the possible product of child-labor.

A large and well equipped playground with many tennis courts, handball courts, baseball diamonds, running-tracks, and opportunities for all sorts of well-established field games, is a necessary and a vital equipment for the natural and normal education of our children. For every thousand children ten acres of playground is not too much. No trainer of horses would be satisfied with even this relative amount of space.

You say this is impossible in cities. Then transport all the children above the third grade into the country and back each day, free of charge and see that it is made possible. One hour each day, whenever weather permits, should be spent at play, and all children should take part as in their lesson work. Of course I know the objection will be made immediately that this is a visionary and impossible scheme. I reply, that child-nature and its nurture demand nothing less and all objections must be set over against our values of children. No normal child has ever existed who did not crave opportunity for free play, and no child to whom it is denied will ever grow into the fulness of his normal

[1] McDougall, *Physiological Psychology*, p. 23.

possibility. If Groos is right when he says "childhood is for play," then this emphasis is not only just but vitally necessary.

The other day some high-school lads were warned to keep away from cigar stores and billiard halls during intermissions, for it was urged that they would certainly acquire bad habits in such places. The leader retorted by saying "Where shall we go? You give us no playground, we are not allowed any freedom in the schoolhouse, and we are in serious need of some unhampered fellowship with each other. Tell us of a better place." The school authorities felt for the first time, I think, something of the significance of this almost inhuman treatment of vigorous boyhood in our cities. If they had dared to answer honestly, they would have been obliged to say, "It is the people's fault, not yours."

I therefore insist that if you call this plan visionary and impossible, that you do so because you undervalue our children. Play is not simply for fun and health, it is demanded by nature as the most natural and helpful process looking toward physical and spiritual enlargment and unification. Child-study has brought emphasis to these demands in a most decided and unmistakable way.

We need to fully appreciate the truth of what Mandsley has said in many ways:

> Our brains would go on longer if they were properly fed with energy from below, but the organic functions decay and fail; it is their failure which causes desire to wane and the grasshopper to become a burden; they are the source of life's energy and relish and in their integrity and vigor lies the secret of a fresh and vigorous old age.

Again, each child should learn how to plant and care for plants. Not that he may become a gardener or a farmer, tho it would be a great blessing to many cities of this land if many city boys could be vitally and permanently interested in farm life, but chiefly that he may learn to do things worth doing, thereby enlarging his effective life and accordingly his general appreciative ability. This sort of manual training has back of it the instinctive bias of child-life toward the world of nature and immediately quickens this instinct into a lively interest. This sort of work need not absorb much of his time, but it is essential for him to learn to enter into co-operation with nature and to understand that she is no respecter of persons. Growing a potato or a rose is not like making a box. There are elements of active co-operation present in the former activity not in the latter. No person is safe who has not in some way proven his capacity to do many things worth doing. City children need this far more than country children. But how can we get it? May I suggest what I have not time to elaborate. Every large city school system ought to have, and can have, a school farm where city boys, at least some of them, and especially of the grammar grades, may go for a brief period to see, do, and learn about just such things as I am talking about.

The boys on Thompson's Island and the McDonogh Farm are getting the sort of training in this regard that all our boys need. Learning to milk a

cow or drive a horse properly is more educational in its outcome for most boys than learning how to extract the cube root or to con geographical definitions. In this field of farm life and labor even a smattering of skill and experience would vitalize much formal schoolwork and open up a new life to many city boys. This then I submit as a vital element in a future course of study in manual training. It can be done and would do much to broaden and unify the physical life and the sympathies of such children.

Finally, courses in shopwork, in both wood and iron, have been worked out elaborately in many schools. It is not my purpose to speak of these in any detail, but simply to say that unless they stimulate the children into a desire for self-expression, and furnish opportunity for the same, they will not fully meet their needs. Furthermore, they must be so constructed and so ordered that the child will feel that he is attempting to do something worth while. That he has undertaken to make something worth having when it is done, at least that it will satisfy some normal need of the child or his fellows. As far as possible, imitation should be avoided, for as we have said elsewhere, habitual imitation fails to broaden, quicken, and enlarge consciousness, for this conscious life is never so vivid and never so enriched as when the individual is trying to express his thoughts in some active process. We ought never to lose sight of the fact that action without much thinking and planning goes a very little further than the muscles.

III. FROM THE POINT OF VIEW OF THE SCHOOL SUPERINTENDENT

CHARLES H. KEYES, SUPERVISOR OF SCHOOLS, SOUTH DISTRICT, HARTFORD, CONN.

I. The problem before us for consideration and discussion today involves many mooted questions of intricacy and difficulty. We may help to clear the way for a few steps on the path toward solution, by recalling five special pedagogical axioms that are usually promptly and completely forgotten by people who undertake the formulation of a course of study in manual training for elementary schools.

1. No adequate course of study in manual training was ever made by a school superintendent or a group of superintendents.

2. The large majority of the inefficient and unbalanced manual-training courses are prepared by manual-training teachers and supervisors, and the freer the rein given them, the wilder these courses of study usually are.

3. Art teachers are no better equipped to make manual-training courses than school superintendents and manual-training people are. They possess the one advantage, however, of being as a rule too modest to essay any such task.

6. The child-study experts are the only people who might make worse courses than ordinarily come from any one of the three sources just referred to.

5. The responsibility for inadequate and defective courses of study in manual training must rest primarily with the school superintendent and his

principals. To state the proposition in other form: The superintendent of schools must be held responsible for the development of a rational manual-training course and it must be made in the same way that an effective course of study in any other subject is produced.

II. This responsibility is for a number of specific and fundamental items which must be carefully examined.

1. The superintendent and his principals must see to it that proper time and opportunity is provided for doing the proposed work in a way that is worth while—time that can be protected from the demands and encroachments of other subjects of the curriculum. The poorest course of study thus provided for and protected is better than a superior course without time to be genuine.

2. It is the duty and responsibility of superintendents and principals to insure that these courses provide for such forms of manual training only as can be shown to be educative interpretation or genuine self-expression. Doing stunts with knives, or needles, or planes, or hammers is not necessarily a desirable form of education. Not all confections in mud or paper, iron or pine, reed or rafia, twine or tilo, are either *self-expression* or *educational* interpretation. Educational manual training is nothing else; and it is the specific responsibility of the superintendent and his principals to see that the course in manual training can stand this test.

3. The responsibility is similarly placed for making the manual-training work as largely as possible ancillary to the work in the traditional branches of arithmetic, geography, history, nature-study, and science. In this way only will the work get adequate time in the modern school of many subjects.

4. The superintendent and his principals before attempting the formulation of the course in manual training are responsible for securing complete and illuminating advice from four classes of experts. (*a*) The most important of these is the manual-training teacher or supervisor. Skilled in manual processes, observant of their reactions upon pupils as well as themselves, familiar with tools and appliances as well as materials, they are best fitted to furnish the most important counsel as to what the course of study should contain. But this advice should never be vouchsafed until the manual-training expert first learns from observations of classes and pupils what work they are doing and can do in the arithmetic and drawing and science and other branches of common-school endeavor. Only experts competent to recognize and estimate educational values in the academic work should qualify as advisers on this point. (*b*) Another expert whose counsel and assistance are indispensible to the framer of the manual-training course is the art teacher. Educational manual training is and ought to be so dominated and determined at almost every step by art principles that it would be futile to expect an effective course of study in this field without the constructive criticism of the art-teacher. Again the work of the art-teacher and the manual-training teacher is necessarily so inextricably and delightfully inter-

woven that it would be impossible to prepare any intelligent scheme of work without the art-teacher's contribution. In fact we may well question whether the only ideal special teacher of manual training in the first four or five grades is not an art-teacher trained for this special service. (*c*) The next expert to whom we must turn in assuming this responsibility is the master of child-study. To him we must go for criticism of processes, appliances, and materials. The bearing of all these on the intellectual and physical health of the child ought to be studied by the practical expert and judgment rendered accordingly. It will be a fortunate day also when child-study experts and sane physical-culture teachers address themselves to the study of manual-training processes as a means to health. We shall then be much aided in producing a more effective course. (*d*) But after the manual-training teacher, the art-teacher, and the doctor of child-study have done their best there still remains to be sought the counsel and criticism of the most valuable expert of all, the efficient grade teacher. Without her aid and judgment the course will not infrequently rub at points; and she is always able to help put the most carefully prepared course into shape that makes it mean more for her boys and girls. She is a teacher of girls and boys, of course, and not of clay modeling or basketry, and I wonder if some of our elementary training is not so wooden and muddy at times just because we do not put enough of the live grade teachers into the course of study. When further we take into account that it is the regular grade teacher who must do three-fourths of the work in manual training of the early grades it is the more important that we shall command her aid in shaping the course.

5. The superintendent and his principals are responsible for the sequence and arrangement of the material of the course of study so as to secure proper correlation of teaching endeavor. I am not concerned with a correlation for the sake of correlation but I have grave interest in more correlation for the sake of more effective teaching. How much time is lost, for example, because we fail to bring the drawing or the arithmetic to the manual training or the manual training to the science and arithmetic. No one but the superintendent and his principals can effectively contribute this element of strength to the course.

6. Last but not least of these specific responsibilities of the superintendent, I name the necessity for securing recognition of the environment of the school in the details of the course of study in this subject. In every subject we strive to knit together the world inside the schoolroom and the world outside the schoolroom. So the surrounding natural, economic, and social conditions furnish wise limitation or powerful stimulus for the work of the school. Thus the interests of the community re-inforce interest in school and the boys and girls are trained to an understanding and respect for the conditions out of which their own prosperity issues.

III. Now I am not sure that any one has dreamed of a uniform course of study in elementary manual training for the whole country or even for all the

schools of a single great state. Such a plan would appear to the speaker one of the most unwise that could be undertaken, doing violence to the principle just enunciated. We have had two trying experiences in this country illustrating the danger of implanting a system without reference to its environment and assuming that it would grow and prosper. The Sloyd courses of Sweden were brought to Boston; but it took ten years of Yankee modification to make them go in New England public schools. Boston Sloyd courses were prescribed for Pasadena and Santa Barbara and it took five years of study and modification to make them fit the public schools of southern California.

Again, the history of the kindergarten in America furnishes another illustration of the folly of attempting a uniform fixed course. For years the country was full of kindergartners working themselves into rhapsodies and their friends into ecstasies over their unchanging and unchangeable system, the same yesterday, today, and forever. All of truth had been discovered by a revered leader—what he did in Switzerland in his time was exactly the thing to be done in any land and in any time—the materials and processes he used with his peasant babies on the mountain sides were the only things to be used, in Philadelphia or Quebec, in Honolulu or Bombay. Some dear devotees of the "pure kindergarten" still insist on this gospel and urge it in language that no one can understand and no one ever has understood; the mass of thinking kindergartners have brought their kindergarten courses and processes into vital touch with their special environment. Good kindergartens in Hartford and Boston, in Los Angeles and Helena, in New Orleans and St. Paul, are not and never ought to be the same in their courses and plans. I assume accordingly that we shall not strive to formulate any one ideal manual-training course for the elementary schools of the country.

IV. I believe, however, that it is desirable that some of the best thought of the country be brought to bear upon producing several courses of study in manual training for the elementary schools.

All should recognize universal fundamentals inherent in the nature of the child. Each should recognize and take into account a great characteristic environment. One classification might be into classification for great cities, for small towns, for country schools. Another might recognize such types as are suggested by urban-manufacturing trolley-netted southeastern New England, by the farming belt of Illinois, Iowa, Kansas, Nebraska, etc., by the semi-tropic empire in whose metropolis we are met.

The Committee of Seven found in dealing with its much simpler problem —history in the secondary school—that a number of courses must be formulated to meet varying conditions thruout the country. One or the other of these courses has been adopted in hundreds of cities and towns thruout the country and no progressive city in America now undertakes to issue or reissue a course in history for its high school without incorporating therein the chief features of one or more of these courses. A set of courses on manual training similarly

prepared would solve the problem exactly for scores if not hundreds of towns thruout the country; and they would furnish a guiding standard for the schools of every wide-awake town of the land.

V. I venture to suggest that the departments of the National Educational Association represented in this joint session ought to undertake this work; and they ought to do this thru a working-committee made up of representatives of the five interests involved in this discussion. (1) Live school superintendents and (2) growing school principals who have come up thru the ranks to successful leadership, (3) child-study experts (not doctrinaires of the cloister variety), (4) efficient manual-training teachers and supervisors who are not simply handy but educated, (5) and broad-gauge co-operative teachers of art—these are the people who can deliberately do this work. It means drudgery and conference and more drudgery and more conference. It means faith and sympathy and insight. But the result will affect for good the schools of the land for a generation.

If we can inaugurate and perfect some such movement as this, the session has been worth while; if not, another theoretical, pedagogical seminary has passed into history under pleasant skies and a gracious presiding officer, whose assembly it has been a high privilege to address.

DISCUSSION

T. A. Mott, superintendent of schools, Richmond, Indiana.—The superintendent's view of the manual training as a part of the educational process in the schools of the state should be a broad one. If we recognize as we must that the training of the hand is as legitimate a function of the school as the training of the heart or the mind, the duty of the superintendent is clear. The three papers we have just listened to on this subject are the ablest discussions that I have ever heard. With them I clearly agree.

The superintendent's place in our educational system is that of the leader and director of the educational forces of the community. Not only should he be a leader and director of the corps of teachers, but also a leader in the board of education and among the people with whom he works. The new education has established the fact that manual training in its true forms is purely educative and seeks the development of the full man. It insists that the school cannot in any complete sense develop the intellectual and moral powers of the child without a corresponding training of sense and muscle to be the servants of the mind. It also insists that there can be no high degree of manual power on the part of our citizens without a corresponding mental development. In fact we all recognize that the man with heart and mind and hand trained co-ordinately becomes the most useful citizen whether his life be lived in the industrial world or in the realm of intellectual work. That the one who possesses the most rounded development of bodily power will in the long run prove the strongest in all those fields of life in which the highest forms of intellectua effort are demanded.

Again we must recognize the value of joyful work as an educating force in human life. The power to do work is the largest factor in the measurement of character. Training in the power and habit of doing accurate work with a true motive is one of the greatest elements in the educational process. Education from the first to the last means training in doing the best one can do along lines of useful work.

Granting these facts, manual training becomes a fundamental element in every

rational course of study in the grammar and high schools, and the equipment of manual-training facilities is an essential part of the physical equipment of every school system.

The great variety of manual-training courses in this country is bewildering. The great need of our schools today is an authoritative statement of the best courses of study in manual work. The many courses proposed and carried out in different schools should be carefully studied and sifted by a competent educational committee, and their judgment given to the world in the form of a report to this association.

L. E. Wolfe, superintendent of schools, San Antonio, Texas.—Professor Dresslar, in his valuable paper has presented a great variety of subject-matter for manual training The selection of the proper subject-matter for manual training is very difficult. I am sure however that we will not go far wrong if we keep constantly in view the general principle that such educative material must be selected as will most vitally relate the pupil to industrial life. As some doubt has been expressed as to the feasibility of school gardens and school farms, I would like briefly to refer to what is being done in our city. For nearly three years we have had school gardens in connection with each of our twenty-four schools. These gardens are on the school grounds, and are in size from a tenth- to a half-acre. The boys of the fourth, fifth, and sixth grades devote one hour a week to gardening while the girls sew. The work is in charge of a competent supervisor who goes from school to school.

While the gardening was made voluntary when first introduced, only a few requests to be excused came from the parents. The boys look forward to the garden hour with delight. They love the work and are especially glad to have an opportunity to stretch their limbs. We must not think of this gardening as simply digging in dirt. On the contrary, it is highly educative. The boys are more or less familiar with the necessity for economy in the use of material in woodwork—in the building of houses, etc. They learn that a like economy must be used with the soil and moisture out of which grains, grasses, fruits, and vegetables are made.

We are looking forward with the beginning of school next September to a school farm of twenty or thirty acres, located near the terminus of a car line, where boys of the sixth, seventh, and eighth grades and the high school can be taken for a half-day or more once every two or three weeks, for the practice and study of tree culture and for the purpose of carrying out such systematic experiments as are being made under the direction of the state experiment stations and the United States department of agriculture.

I am satisfied that there is a great future for school gardens and school farms thruout the South, where a spring and a fall garden can be planted, cultivated, and harvested during the school session. In the North where the growing-period is chiefly during vacation, we may have to resort to vacation schools, to secure the best results. For these reasons I can not entertain the idea of omitting the dealing with mother earth in our manual training, especially at a time when the government of the United States is doing more than ever before in this line and when Luther Burbank and others are showing the possibilities in the field of agriculture.

Cree T. Work, president of the College of Industrial Arts, Denton, Texas.—By way of information touching the subject of agricultural instruction, which has been included in the presentation of this question, you will be interested to know that day after tomorrow (July 11) there becomes effective in the state of Texas a law requiring that the elements of agriculture shall be taught in all school districts having a scholastic population of three hundred or less. I also desire to announce what the gentleman from San Antonio (Superintendent Wolfe) was too modest to say, namely, that not only does San Antonio teach agriculture in the schools, but that she has also been making generous provision for, and a good beginning in, bench work, domestic science, domestic art, and other forms of manual-training work.

I desire to call your attention to two points bearing upon the adequacy of our courses in elementary manual training, and to commend them to your consideration: The first is, that the adequacy of our courses depends in part upon their adaptability to the sex of the

pupils. Girls and boys have an intellectual recognition of sex and the consequent differences in habits, work, and even thought processes, before they reach the period of physical change. In all of our schoolwork we have been too prone to overlook this great fact. We have followed most faithfully the tendency of our forefathers to masculinize the curricula of our schools thruout, from the A-B-C class to the end of the high-school course, and even thru the college. Search your textbooks and see what a dearth of reference there is to the interests, activities, and life of women and girls. If we will recognize the existence and interests of both sexes in our courses of manual training, as well as in other schoolwork in the elementary grades, we will thereby do much to vitalize the process we call education.

The second point I would make is that the adequacy of our courses in manual training depends in good part upon the attitude of the school authorities—the board of education, the superintendents, the principals, and the teachers—toward the work, and particularly in the matter of the credit given to the work by them. The esteem in which any line of schoolwork is held by the authorities and teachers has much to do with the manner in which it is received by, and with the consequent educational effect on, the students. We cannot expect our courses in manual training to be the most beneficial so long as they are regarded as ornaments, extras, tag-ends, or "non-essentials;" or so long as we relegate the work to the attic, the corner, or the damp, dark basement of the school building, where we would not think of placing the history or the mathematics work which really requires less light and less pure air than the manual training. Neither can we hope for the best results until the manual-training courses are taken with the same seriousness by teachers and superintendents as is bestowed upon other subjects, and credit given on the records and reports accordingly. I would not have in my school work for which I could not give credit. If the manual-training work is not worth classifying with other schoolwork in this respect let us dispense with it and put in something that is worth while. But since its worth has been well demonstrated, it seems reasonable to ask and to expect that it be formally respected. This will result in the greater effectiveness of the work in the school, as well as in a positive advantage to the individual pupil.

Emma C. Davis, supervisor of public schools, Cleveland, Ohio, stated that an experiment in school gardens had been carried on in that city for three years. Gardens, in which both girls and boys worked, were in eight school districts under the supervision of a director of school gardens. These gardens were devoted mainly to vegetables, tho flowers also were grown. The gardens varied in size from plots in the school yard to a half-acre of ground adjoining a school building. Talks and experiments on soils, growth, pollination, etc., formed an important part of the work. It is considered a valuable adjunct to both the manual training and nature-study in Cleveland.

A. H. Chamberlain, Throop Polytechnic Institute, Pasadena, Cal.—Fifteen years ago it would have been an easy matter for me to have outlined a course of study in manual training best adapted to the elementary school. Today I should hesitate about making a dogmatic statement in this direction. Indeed I should oppose any uniform course of study proposed. But whether the course be suggested by the school superintendent, the child-study specialist, the grade teacher, the art, or the manual-training teacher, the first element necessary is common sense. True it is that the work adapted to one locality may not be best suited to another, and even in a given locality the work demanded at one time may differ materially from that which should be offered at another.

Too long has the "bread and butter" idea been in seeming conflict with the culture side—the utilitarian as opposed to the so-called educational phase. There is and should be no conflict. It is necessary that in any locality the children be taught to use those elements and materials that lie about them. Too frequently the teacher ignores the facilities at hand and reaches out after the non-attainable. While we should always strive to better conditions the effort should be made to utilize to the utmost the materials at hand and to use the equipments in the most effective way.

In a given city or state an expert should be provided to visit the various schools. He should study the equipments and see how they may be improved at the least possible expense. He should investigate the possibilities of materials in the immediate neighborhood; he should learn the needs and demands of the locality; he should study the teachers and their methods and be what the English would call an organizer in manual training. He should combine the necessary qualifications of superintendent, child-study specialist, art, manual-training, and grade teacher and be possessed of a large amount of tact and common sense.

THE RELATION OF INDUSTRIAL EDUCATION TO PUBLIC INSTRUCTION

INTRODUCTION BY THE PRESIDENT

FRANK M. LEAVITT, ASSISTANT DIRECTOR OF DRAWING AND MANUAL TRAINING, PUBLIC SCHOOLS, BOSTON, MASS.

It is probable that no single topic has engaged the attention of educational conventions more frequently, during the past two years, than has this topic of industrial education. Certainly there is no question which has been so insistently urged as being of immediate and vital concern to the country at large. Furthermore the discussion has been remarkable in that there seems to be but one opinion regarding the necessity for, and the benefits to be derived from, the establishment of a wise and far-reaching system of industrial training.

The conditions which have led to this urgent need have been set forth so fully and are doubtless so familiar to most of us that I will merely mention the most obvious of them without comment.

The industrial and commercial prosperity of our country has resulted from peculiarly advantageous circumstances. Our raw material has been comparatively cheap and seemingly unlimited. In addition to foreign customers we have had a large and prosperous home market. Our native population has been almost instinctively industrial and is virile, aggressive, and adaptable. We have had also the advantage of a liberal sprinkling of skilled and industrially trained workmen from the Old World, attracted by the superior opportunities offered in our new and rapidly growing country. While never as perfect as some seem to imagine, we formerly had an apprenticeship system which provided a thoro industrial training for a considerable number of our workmen.

It is apparent that these advantages over other industrial countries are fast disappearing and that they do not today exist in a degree sufficient to warrant us in ignoring longer the crying need of a thorogoing system of industrial education.

While there is unanimity of opinion as to the needs of the establishment of a system of industrial education, there is no agreement whatsoever as to the agencies by which such education shall be given. Shall it be provided at public expense thru an extension of the present school system? Shall the state give local aid in establishing special schools for this purpose? Shall

private enterprise provide such opportunity at the expense of the pupils, as in the case of many excellent commercial schools? Shall the industries themselves establish schools for the training of their workmen? Shall philanthropic institutions support, wholly or in part, classes for instruction in industrial subjects?

It is certain that experiments will be made by each of these agencies. The Y. M. C. A. is already doing excellent work in the line of vocational training. Mr. Frank A. Vanderlip, vice-president of the National City Bank, of New York, and one of the managers of the National Society for the Promotion of Industrial Education, says:

> With proper financial backing no organization is better fitted to meet the great demand for industrial education in New England than the Y. M. C. A.

In this connection it is interesting to note that, in the Association Evening Schools of Massachusetts and Rhode Island, the receipts from tuition fees have increased more rapidly than the expenses of the classwork and that they will equal each other next year if the same rates of increase continue. This indicates that working-men want industrial education and that industrial education is worth to the workman all that it costs.

As an illustration of the method of establishing special schools with state aid, I will outline, in the briefest way, what has recently been done by the state of Massachusetts. In June, 1905, Governor Douglas appointed a Commission on Industrial and Technical Education, consisting of eight members with the Honorable Carroll D. Wright as chairman. Their findings and recommendations are embodied in a report dated April, 1906. So numerous were the calls for this report that it was necessary to print the second edition. It was one of two books recommended to the Eastern Manual Training Association and the Eastern Art Teachers' Association, at their convention last year, by Mr. John Cotton Dana, librarian of the Newark Public Library, and it is now being reprinted and offered for sale by the Publication Board of Teachers College, Columbia University, New York.

Following the recommendations of this first commission, a second and permanent commission was appointed by Governor Guild under the chairmanship of Professor Paul H. Hanus, of Harvard University. Work was begun last September and broad definition was given to the policies which are to serve as guides in establishing local industrial schools. Among others, the policy of granting state aid was adopted and any city or town establishing an industrial school may receive a subsidy amounting to from one-fifth to one-half of the total expense of the school. Already two or three towns have taken definite action toward the establishment of such schools. The permanent commission recently submitted a report under date of March, 1907.

But the National Education Association is primarily an association of teachers and we are mainly interested in problems pertaining especially to the schools. It was with the hope of determining to what extent the present public-school system might be made to serve the needs of industrial education that

today's program was planned with the general topic, "The Relation of Industrial Education to Public Instruction."

There are some of us who feel that the scope of public instruction should be broad enough to include a considerable amount of training with real vocational purpose. We believe that training for the industries is bound to come. We note the suspicion of organized labor and feel that there may be reasonable ground for such suspicion if the working-out of the problem is to be left entirely to industrial corporations, for there is a possibility that, in this event, the least desirable features of present industrial methods may be carried over into the schools. We realize that the public schools have ever changed with the growing needs of society and that subject after subject has been added to the early curriculum as each has been brought by changing conditions into the list of essentials. We even feel that our schools are on trial and that they must help in the solution of this problem if they are to maintain their place in the esteem of the people at large, as an important factor in our national existence.

Manual training was originally urged for vocational purposes but it has come so largely under the influence of the academic spirit of the schools that it is frequently given place solely on account of its cultural value. Cultural value it has of a high order; but is it not possible to conserve this feature and add something of the vocational purpose?

I. MANUAL TRAINING VERSUS INDUSTRIAL TRAINING IN THE HIGH SCHOOL

B. W. JOHNSON, DIRECTOR OF MANUAL TRAINING, SEATTLE, WASH.

The situation in regard to industrial education and the conditions which are now demanding that educators give the problem their immediate attention, have already been clearly stated.

My topic, fortunately, limits this paper to a consideration of the high school and its relations to this situation.

The charge has been made that manual training, the one subject more closely related to industry than any other in the curriculum, is administered as "a sort of mustard relish, an appetizer conducted without reference to an industrial end." There is doubtless much truth in this statement of the position of manual training in the service of education. But the term "education" is used with different meaning by different classes of individuals according to the needs it is supposed to supply. The manufacturer and the merchant want skilled help; the school teacher holds up the cultural ideal of knowledge acquired; while society is calling for men and women who blend these attainments into an efficiency for service to self and to others.

Education is a systematized means for aiding the individual to live successfully, and to live successfully he must co-operate with his fellows. He must be equipped with skill in some calling and possessed of intelligence to direct this skill for service to himself and to others. He must, therefore, be able to

appreciate the efforts of others and feel an obligation to contribute his share to the common good.

The report of the Massachusetts Committee on Industrial Education brings out very clearly that the boy and girl are of little account to industry until the age of sixteen, and that those children who enter some vocation earlier than this never advance beyond the unskilled class and that as men and women they are deficient, not so much in manual skill as in industrial intelligence,

> that power to see beyond the task which occupies the hand for the moment, to the operations which have preceded and to those which will follow it—power to take in the whole process, knowledge of materials, ideas of cost, ideas of organizations, business sense, and a conscience that recognizes obligations. Such intelligence is always discontented not with its conditions but with its own limitations, and is wise enough to see that the more it has to give the more it will receive.

Quoting again from this same report,

> The development of policy in the industrial world and the experience of educators shows that the productive power of the child before fourteen is negative, and that it has not the power to handle anything but the simplest processes in the simplest and smallest way; that from fourteen to sixteen he is of productive power only for the large processes of manufacture or for errand work; but that the child in those years, by teaching, may gain the principles of industrial work, which may be put into practice after sixteen; that, therefore, the training before fourteen should be in the simplest practical lines only; that between fourteen and sixteen it should combine the practical training in specific industries with academic work as applied to the industrial problems, to develop intelligence and responsibility.

It is quite evident then the limitations imposed upon any scheme of education are those placed there by the social conditions the individual to be educated is later to occupy, by the laws of growth and development of the individual, and further by the means available to supply the right conditions for this growth.

It is the belief of the writer that the high school is the very place to begin and to a large extent carry out this industrial education now demanded, by giving the manual training a larger service in content and in form to meet the new conditions. Public education, should have but one aim, and that a democratic one, conserving a democratic spirit and ideal in the coming generation. To have two systems of schools, one for culture and the other for vocation or industry, seems inconsistent with our American ideals.

Dr. DeGarmo states in his *Principles of Secondary Education:*

> The meaning of democracy is that every child shall have both incentive and opportunity to carry his educational development as far as his ability and circumstances will warrant, and in such direction as his taste, capacity, and situation in life may make desirable. For in education what is best for the individual is also best for society. Democracy, therefore, instinctively so adjusts its secondary to its primary schools that every child, whatever his social status, shall find the transition from elementary to secondary education both natural and easy. In form at least the American organization of schools provides opportunity for the continuous mental development of every citizen; for not only do all primary schools empty into the secondary, but the secondary likewise lead to the higher.

In the service each individual is to render to his fellows—society—all

callings, and they should all have equal honor, may be roughly grouped into four classes: the professional, commercial, productive, and domestic. As pointed out by the Massachusetts Commission, the first, the professional, and the one that led to the devising of a scheme of education, is abundantly provided for in our English and Latin high schools and universities; the commercial, in business education, in commercial courses in high schools, and in private business colleges. But those occupations engaged in production are found only touched educationally in the most advanced and scientific forms in the college and university.

Society is now very complex. Industry is highly diversified. The schools must also be diversified, to meet this situation and give equal opportunity to the future industrial worker to learn the principles and methods of a vocation, as they have given to the doctor, lawyer, and engineer. Tho many of these callings are best taught in the college or university, yet they all have fundamental principles that should be given in our high schools.

The question is largely one of means for no one doubts that these activities should have a place in our educational scheme. But we must remember that nature, in fixing the laws of growth and development of the child has, in so far as we understand that law, determined when and how such instruction can best be given to the child.

My argument is that the law of educational development prohibits specialization below the high school, and allows but little until after the second year of the high school; that the first years of the high school must open to the pupil the industrial field in a broad way; that special vocational training should be offered, in the last two years; that the easiest adjustment can be made thru the manual-training course or the manual-training high school; that manual training rightly understood by its friends may comprehend the meaning of industrial education, and rightly taught from this point of view, would give the foundation for an industrial intelligence that later specialization could build upon; and lastly this plan would greatly aid in keeping the educational path leading toward higher knowledge and efficiency, always open.

The statement attributed to a Jesuit priest, "Give me the boy before he is seven and I care not what you do with him afterwards," has been proven a fallacy, and the age from fourteen to eighteen or nineteen is now considered the crucial time when reason and judgment begin to sway the will.

Our high-school pupils enter as boys and girls and leave the school as men and women capable of performing all the functions of adult life. The lessons of this adolescent period all teach us that no period of life is so important. The changes, physical, mental, and moral, call for thoughtful consideration. The boy and girl are now very different from what they were in the grammar school. The youth is gaining a mastery over himself and may develop skill in muscular control. His mind is now awakened by the significance of events. He begins to realize the relatedness of phenomena that heretofore existed for him as isolated facts. Science and history are new subjects that he finds

fields of vast interest opening for his growing imagination. The facts and forces of industry and their dependence upon science can be made clear to the boy. Instead of giving close attention to one form of vocation, its theory and practice, an analysis should be attempted of the basal principles that underlie the practice in all the arts, that a broad view, and as much experience as possible may be given the youth at this age.

This period of discovery of self and the interests that are awakened by excursions into many fields of knowledge, must be kept free from the narrowing influence of prescription. There must be a wide range of elective study. In our American high school the boys and girls, from every walk in life, are gathered and they in turn pass out of the school to possibly a greater diversity of life in the society of the immediate future. The range of future activity for these boys and girls is limited only by their diversity of interest and hereditary training. The leaders in all professions and vocations must get their secondary education in the same school. This diversity of talent and aim cannot be given the education needed in the narrow limits of a few subjects. The activities of life and its pulsating interests must be brought to the service of the school and energize its forces for attracting and retaining our youth for the larger efficiency of industrial life.

With our elective system in a city high school it will not be difficult to arrange for those pupils who desire it specific instruction in some of the leading vocations, or those of greatest local need, in the last year or two of the course. This is nothing new, as it is now practiced in a number of schools. Superintendent L. D. Harvey, at Menomonie, finds it is practical, and is meeting with marked success in increased attendance and interest. This plan has advantages in organization in cities having more than one high school. In Seattle the new high school will have complete equipment for manual training for the first two years for boys and girls. At the end of the two years those pupils, electing this work and wishing to specialize along some particular line will attend the central high school, where complete equipment will make it possible to carry out any line of vocation work the needs of that community require. As many students drop out of school the last two years, that makes it possible to combine small classes in similar subjects in the central school, and as this line of work usually requires the most expensive equipment, economy is practiced in fitting up the one school for advanced work.

Manual training is no longer limited to the narrow view of a cultural or disciplinary subject. It has a rich content of its own tho none the less cultural and disciplinary while serving a larger end in education.

Manual training has undergone an evolution in method and matter as well as in its relations to the other school subjects and to industry. There are four steps or divisions in the development of this subject as an educational means: (1) tool process or technique; (2) tool process or technique in making something of utility; (3) technique and utility with the opportunity for the

child's initiative; (4) using the above three means to give social or industrial relations in form and content.

These divisions are really stages of growth and are all evident in manual training today. They are not perhaps sharply differentiated in point of years nor as to particular locations or sections of the educational field, but are rather evident in the thought and purpose of teachers of manual training in many of our schools.

The first period was the block exercise period, when imitative skill and the training of a set of so-called faculties of the mind were sought, the advocates of manual training stressing its disciplinary power in developing habits of attention, concentration, will, etc., because mental training was the aim of the scheme of education into which they were trying to break. So logical sequence of tool and process was carefully carried out. It established for all time, however, the value of hand and eye training in education, and the absolute necessity that the physical world of fact and force be added to the environment of the pupil.

The second step forward was in a large measure due to the advent of Sloyd. The chief difference between Sloyd and the Russian system being that the former used a completed model in place of a practice piece while teaching the orderly use of tools. Of course this greatly stimulated the interest of the child, tho on the same plane pedagogically with the "pot hooks" of his copy book. However, the truth was established that a boy prefers to make something no matter for what purpose than simply to continue sawing and planing for the mental and physical training he is getting out of it. The concrete utility of the object made served further to popularize the subject.

We have but lately recognized the third point of progress, that of giving the child some opportunity for the exercise of his initiative, by permitting him to choose the object he desires to make. This gives "a real motive behind and a real outcome ahead." Limitations are of course imposed upon selection by his ability and skill to do what is best for him to do.

These steps or points of progress deal solely with the formal side of the subject; such content as it has dealing only with the narrow field of the technical facts of this particular activity. More and more emphasis is now being given to the content of manual training, but that content is more vital in education than technical acquisition alone. Art and industry are the substructure of society, and manual training is now being used to illustrate these achievements of the race and acquaint the pupil with the life of industry about him. Art has greatly affected the methods used and rationalized our handwork along structural lines, emphasizing service in design and decoration. Also the application of science to industry is being illustrated in making mechanical devices—pulleys, levers, carrying devices—in the realm of applied physics. The introduction of domestic science and domestic art for the girls is largely considered from the point of view of their industrial values.

The fact of these changes argues for further growth and that the need for

industrial education can be supplied in our high schools. But further changes are necessary.

1. *More time given to manual training.*—This can be accomplished by lengthening the school day, giving half of the session to manual training and the other half to the academic work. This plan is recommended by the Educational Commission of Cleveland. They also recommend a separate high school to be organized to carry out this plan without conflicting with the other courses. As stated previously in this paper such a change should not be made the first year in the high school.

More time can be given in the present manual-training course of our high schools by adding optional classes in manual training for both boys and girls after the usual academic session and giving credit for the work so completed.

Again in a six-period session three periods can easily be given to manual training and three to academic work, in a manual-training course, without in the least conflicting with other classwork. It would simply necessitate the pupil's preparing his lessons at home or out of school hours.

2. *A better selection of subject-matter.*—This applies both to academic subjects as well as to the manual-training work. The main subject, mathematics, science, English, history, German, or French, must be given full place in proper juxtaposition and succession. The methods used in presenting them should be such as to make it possible to interpret their meaning in terms of the pupils present experience. As Dr. DeGarmo puts it,

> Is it not somewhat of a contradiction in educational practice to borrow one's subject-matter from ancient sources, while being compelled to rely on the pupil's experience in modern environment for its comprehension? All we have to do to enable the student to understand even the most complicated machinery of industry or institutional organization is first to point out clearly, its purpose, and then analyze the whole into its constituent elements. In this way, both apperception and knowledge to be apperceived come from the same environment.

The practice in the manual arts should deal with the application of principle using such examples in the arts as are found in the community of the school or in the larger field of industry in the state or nation. This leads to the next point.

3. *A careful analysis of trade processes in all vocations should be made to determine their fundamental elements adaptable to pedagogical principles, and to determine the common element in them for related experience.*—There are some three hundred trades. What ones shall we select? Will the large manufacturer determine the selection thru the school directors or shall we use the one that offers the least difficulty in teaching and in cost? The needs of the community should of course be a large factor; if agricultural, then the activities selected should relate to the soil, plant and animal life and their development industrially; if a manufacturing community, the same principle would apply. Thinking-power cannot be developed abstractly for specific use. It must have its rise in a content that is fundamental to as broad a field of industry as possible. The pupil will then be better able to determine subsequent specializa-

tion without losing its relations—the basis of industrial intelligence—nor become so narrow that adaptation to new conditions will be impossible.

4. *Better teachers and teaching is always a need.*—Strong men and women are necessary, of high technical efficiency, yet possessed of a broad outlook on life, and who rate their specialty in terms of service to the community. They must understand the adolescent youth as well as the exacting conditions of the art and science they are teaching. The tendency in teaching a subject which deals almost entirely with manipulation for its expression is to assume that thinking is being required when the processes of manipulation are being learned, while frequently only the power of imitation, in the narrow field of the specialty, is being developed. The inductive method requiring the pupil to do his own thinking should be used. There should always be provided ample opportunity for the pupil to test his ideas and knowledge in making new applications of the principles taught. Efficiency is knowledge skilfully applied in overcoming a difficulty of real meaning to the individual. The complete cycle of mental activity, cognition, feeling or emotion, and volitional action in doing something, is thus preserved.

5. *As to night classes, a word is sufficient in this paper.*—They should be conducted as a continuation school with attention given to the principles of, and the application of, science to the trade taught. The equipment arranged for day classes should be used for such work rather than to remain idle so much of the time. No restrictions other than physical and mental ability to profit by the work given should debar any boy or girl from such a school.

The foregoing analysis and suggestions relate only to the high school and do not deal with the larger problem of industrial education outside of this narrow field. It is the belief of the writer that to wait until the problem is settled as to separate schools for trade and others for culture and the professions, would postpone indefinitely a large measure of good now within our reach.

We have all over the country splendid equipments in public high schools that are not used one-fourth of the available time. A beginning can be made at once with the pupils now entering high school, and doubtless a much greater per cent. will attend high school and complete its work than formerly, believing that future happiness and success will be more sure of attainment. That such a school will receive recognition by the university will naturally follow when its work is carefully organized and it is recognized that in its disciplinary training manual training is the equal of the study of Latin and Greek.

American society is stratified vertically if at all, and the equality of every individual in it is "the equal right of every individual everywhere to progress." No scheme of education, then, must forget these ideals of a democratic society. Success is not so much in the attainment of wealth and position as in the knowledge that one has passed from the poor of yesterday to the better of today, with a broader vision of the future.

REMARKS BY PRESIDENT LEAVITT

Mr. Johnson has shown us the part which a progressive manual-training high school may play in adapting its more or less traditional work to the vocational needs of the pupils who are fortunate enough to receive instruction therein. The large majority of our boys do not have this opportunity. One of the most significant facts brought to light by the Massachusetts Commission on Industrial and Technical Education was, that the years from fourteen to sixteen are frequently wasted and worse than wasted by large numbers of our boys and girls. The compulsory education law holds the child in school until he is fourteen and it appears that there are few industrial positions, promising a career of progressive usefulness, which are open to him before the age of sixteen. In the meantime, if he leaves school at fourteen, he frequently drifts from one position to another where unskilled and poorly paid labor is employed, forming habits of idleness and irresponsibility which debar him from, rather than fit him for, the more desirable positions referred to as open to boys of sixteen.

It has often been urged that the compulsory school age should be advanced to fifteen years, but it seems doubtful if this question can be properly considered independently of the topic we are discussing today, "Vocational Training."

We should note that the state seizes the best formative years of a boy's life—from five to fourteen—and dooms him to a fixed kind of education whether it has much or little direct bearing on his future needs in his particular environment. At the end of that time it permits him to continue his schooling or to go to work. Boys at that age have a strong desire to be, or to act like, men. Possibly they wish to learn; certainly they have a strong desire to earn. They want to "get into the game," and when called upon to decide between school and work, is it any wonder that so many choose the latter? Suppose the boy listens to our good advice and continues in school for two years longer. Will the added training fit him for a better start upon his lifework? We must remember that many boys by this time would hardly have reached the high school. The questions for us to ask ourselves seriously as educational advisors of youth are, first, have we a school to which we can send the boy who desires to go to work at fourteen, with the assurance that two additional years of education will materially enhance his chance for industrial success? second, if we have no such school, what is our duty? A consideration of the next topic should help us in answering these questions.

II. CAN THE SCHOOL LIFE OF PUPILS BE PROLONGED BY AN ADEQUATE PROVISION FOR INDUSTRIAL TRAINING IN THE UPPER GRAMMAR GRADES?

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One of the most notable contributions made by the nineteenth to the twentieth century is the illuminating thought of John Fiske that the human species has reached its supreme position in the evolutionary scale very largely

thru the gradual lengthening of the period of infancy. Nicholas Murray Butler has seized upon this thought as the starting point for a sound theory of education and has pointed out with great clearness the logical identity of the period of infancy and the period of systematic education. From this point of view, the whole or the greater part of the period of infancy should properly be devoted to activities calculated to develop social intelligence, social sympathy, and social power, to the end that each individual, as completely as possible, may adjust himself to his own system of social relations.

In certain directions, this theory has resulted in a remarkable prolongation of the period of formal education. A person, for example, who pursues the entire course of training in elementary, secondary, and collegiate schools and subsequently, a professional course in medicine, law, theology, or pedagogy, spends twenty years or more in his course of study and reaches the age of twenty-five years or over before he is ready to begin his professional career. Such a striking extension of the period of education, however, concerns directly only a small fraction of our population, as will readily be recalled when we consider the facts in a single typical community.

In the city of Albany, the capital of the wealthiest and most populous state of the Union, there are approximately 1,600 pupils in each of the first four years of school. In the fifth year there are 1,300 pupils; in the sixth year 1,100; in the seventh year 700; and in the eighth year 500. Hardly one-third of the children enrolled in the fourth school year, it will be seen, reach the final year of the elementary school. In the high school of this city, the rate of decrease in number of pupils is even more rapid, the number in the four successive classes being 400, 300, 200, and 150. These figures represent a condition that is general thruout this country. The ratio of decrease in numbers from grade to grade no doubt varies considerably, but the essential fact is almost uniformly the same. The great mass of our boys and girls are not remaining even to the end of the elementary schools, and large numbers of them are leaving as early as the fifth or sixth school year.

In our educational organization and policy, we have evidently failed to grasp the full significance of a prolonged period of infancy as a factor in the development of the individual and of the race. It is possible that by artificial restriction we are shortening the normal period of plasticity, and are thus impairing the capacity of the rising generation to make the needed adjustments to a rapidly changing and exacting environment. There never was a time when there was more urgent need for every member of society to exercise intelligence and energy in adjusting himself to the economic, political, and ethical conditions of life. There can be no more serious educational problem than an inquiry into the methods by which a more complete adjustment may be assured the great majority of our boys and girls.

The present consideration of this problem will be limited to three of its many aspects: first, what are the chief reasons why so large a proportion of pupils now leave school before the end of the elementary course; second, in

what ways may more adequate provision be made for the varied needs of children in the last years of the elementary-school period; and third, what effect would such provision probably have in prolonging the school life of pupils and in accomplishing more nearly the true purposes of our educational system.

Among the reasons to which the rapid dropping out of pupils has been attributed are age, lack of mental capacity, and dissatisfaction with the restraints of school life, on the part of pupils; lack of intelligence and interest on the part of parents; deficiency of insight, sympathy, and tact on the part of teachers; the economic necessity for children to assist in the earning of a family livelihood; and the ill adaptation of the courses of study to the special needs of the children. Very likely all of these influences are operative in greater or less degree. The relative weights of these several influences in determining the dropping-out of pupils is a matter to be settled by a consideration of the facts rather than by a mere expression of opinion. The facts, however, are difficult to ascertain, for the motives that influence individual boys and girls to leave school are by no means always clearly defined even in their own minds. A child who is unhappy or backward in his schoolwork is easily pursuaded that the lack of adjustment is due to the prejudice or incapacity of his teachers or that the welfare of his family requires that he find employment and provide for his own support. It not uncommonly happens that a child whose abilities in certain directions are of high order finds it difficult or impossible to make satisfactory progress in one or more of the school subjects. It is easy for teachers, parents, and the pupil himself to attribute such failure to the stupidity of the pupil rather than to the fact that the school makes no adequate provision for the special combination of abilities that this child possesses.

There is undoubtedly a widespread feeling among parents and children that the last years of the elementary school do not pay; that the opportunities of these years are of no direct value to children destined for industrial and domestic pursuits. At the close of the fifth or sixth year of school, pupils have attained moderate proficiency in reading, writing, and simple calculation, and have some knowledge of geography and the history of their own country. The last years of the elementary course are devoted largely to an amplified study of these same subjects. To a child who can see no immediate application of these studies in solving the urgent problems of his own life, what serious loss can there be, then, in leaving school as soon as the law permits, or sooner if the law can be evaded? Are not these two or three years of greater economic value when given to industrial pursuits than when wasted in the tiresome repetition of the traditional school "studies"?

It is easy enough for the schoolmaster to enter a general denial of the charges implied in this very practical estimate of the relative value of training in the schools and of training in the world's work. He may characterize the estimate as basely utilitarian or he may point to the fact that those pupils who do complete the elementary course are found to have earning-power superior to those who do not. The answer to this reply is that, whatever may be the

facts, there *is* nevertheless the widespread opinion that the training offered in the last years of the elementary school has little practical value, and this opinion is one of the strongest influences in shortening the school life of pupils.

The recent report of the Massachusetts Commission on Industrial Training, tho not conclusive on this point, furnishes strong indications that this attitude toward the practical value of school training has a much more direct effect upon the dropping-out of pupils from school than has economic pressure or the blindness of parents to the higher interests of their children. About half of the parents of children who had withdrawn from school before the age of sixteen, stated definitely that, if there had been courses for industrial training offered in the public schools, they would have kept their children in school instead of allowing them to enter the low-grade and unskilled industries which alone are open to them. More than 75 per cent. of the parents of these children, according to the report, were financially able to keep their children in school if it had seemed desirable to do so.

It is evident, then, that the low estimate placed upon the value of the last years of elementary-school training is a powerful factor in determining the length of the school life of children. Let us now ask whether this estimate has proper foundation or is based upon essential error.

Here again the report of the Massachussetts Commission presents evidence of great value. It is shown that the years from fourteen to sixteen, whether spent in the school or at work, are wasted years so far as concerns the permanent earning-capacity of the great mass of boys and girls who enter industrial and domestic as distinguished from commercial and professional pursuits. Those children who enter unskilled industries at the age of fourteen are put at work that requires extremely little intelligence and therefore possesses practically no educational value. Owing to this arrest of development, these children soon pass beyond the point where the opportunity is open or the impulse is active for them to enter skilled pursuits. They become more and more fixed in their low-grade pursuits. The wages of two to four dollars per week received at the outset are scarcely enough to meet the actual cost of living of a boy or girl, much less to enable him to begin the habit of systematic saving. Within a few years these children reach the maximum of their earning-capacity at about nine dollars per week. This is at so low a level that they are condemned to lives of uncertainty and of poverty if not of degradation.

Those children who remain in school until they are sixteen years old eventually reach a higher wage-earning level, it is true; but the uniform testimony of employers is that they are almost wholly lacking in "industrial intelligence" and that accordingly they enter upon industrial occupations in no condition even to begin to learn the special processes involved in their respective vocations. The advantage, measured by wage-earning capacity, which these children eventually prove to possess over those children who leave school at the age of fourteen, is very likely due, in part at least, to the tendency of individuals of superior intelligence and ambition to remain in school until the com-

pletion of the elementary course. This tendency is strengthened by the traditional high value which public sentiment assigns to a complete "common-school education." Children who remain in school until the age of sixteen, therefore, form a select group having not only a relatively high degree of general maturity, but probably a distinct advantage in the way of native capacity and zeal. On account of the maturing of special capacities and tastes during the years between fourteen and sixteen, it is, moreover, probable that children at the more advanced age more often choose the kind of occupation in which they are naturally best qualified to succeed. The industrial superiority referred to may be accordingly by no means so largely due to the added two years of school training as is generally supposed.

Tho there is reason to doubt the value of the last few years of the elementary-school training as a means of increasing industrial efficiency, it might still appear to be the part of economic wisdom to accept the prevailing conditions of elementary education, with possibly a raising of the compulsory age limit and a more effective enforcement of compulsory attendance laws. Such a conclusion, however, is not justified. The rational development of our educational system does not culminate in a condition under which attendance must be inforced by external authority; but rather in a condition which in itself possesses a compelling-power sufficient to hold the great majority of our boys and girls thru a period long enough for them to attain the genuine purposes of education. Such compelling-power can be secured only thru a reasonable adaptation of the training offered by the school to the concrete needs of the pupils.

The real secret of the loss of pupils in the upper elementary grades is to be found in our astounding failure to provide for some of the strongest psychological and social needs of many pupils as they approach these years. We take boys and girls at a time when their impulses are strong for active participation in the vital interests of life, and we confine them within narrow schoolroom cells, with books and pencils as their chief or sole means of participation; we take them when their desire for social co-operation is a dominant motive, and we require each to work for himself and by himself upon tasks which, so far as he can see, have little to do with the great world outside of the school walls; we take them at a period when their capacity and their instinct for individual initiative is strong, and we expect them to work under the constant direction and control of a teacher—their problems artificially assigned, their coming and going, their starting points and stopping places determined for them; we take them when their individual differences in capacity, interest, and prospective careers are properly matters of growing and vital concern, and we require them to pursue a uniform course of study having little direct relation to these specific powers, motives, and prospects.

Our attitude toward our boys and girls is not unlike that which has characterized our dealings with the American Indians. We placed the Indians upon reservations and took from them their native resources and occupations;

we hedged them about with all manner of artificial restrictions and placed overseers in charge of them to prevent outbreaks; we then found to our chagrin and to our occasional discomfiture that they were not altogether contented with the favors that we had forced upon them, and that they did not always make the rapid progress that we had planned for them. The analogy in our educational policy is not difficult to see. Let us look to it that the idleness, the irresponsibility, the passive indifference, and the physical and moral degeneration that we have forced upon our Indian wards is not repeated in the lives of our own children.

Much of the ill adaptation of our educational organization to the actual needs of our society is due to a false notion of democracy as applied to education. We very properly maintain that a true social and political democracy must rest upon equality of educational opportunity for all. We then proceed to interpret equal opportunity to mean the same opportunity and the mischief is done. We are failing in our educational policy to appreciate the fact that genuine opportunity consists not in what is offered to all alike, but in what actually serves the concrete purposes of any individual concerned. What is a real opportunity to one person may fail utterly to meet the requirements of another.

Curiously enough this pseudo-democratic idea did not characterize our educational organization in the early period of our history. For the first two centuries of our colonial life, the distinct purpose of the schools was to train a comparatively few men for the responsibilities of leadership in church and state. For the rank and file, education was provided in the main thru actual participation in the common activities of daily life—in political functions, in vocations, and in religion. With the expansion of our national life that has accompanied our growth in territory, in population, and in wealth, and with the increased complexity of our social, industrial, and political organization, demands have arisen for trained leaders in medicine, law, and engineering. In the higher stages of our educational system, we have made provision for the training of such leaders. Thus far however we have failed to provide for that great majority of our population that can never by any chance attain to the rank of leader. The school has taken over the entire responsibility for education which it formerly shared with the home, the farm, the apprenticeship, and a social order in which the individual was normally brought into direct contact with a great number of industrial processes. The school has assumed the entire responsibility, but it has not yet discovered how to supply the important factors in education that in other days were provided thru activities outside the school.

Thus we boast of a system of universal education, but fall far short of educating all of our children. Our secondary schools are dominated by the idea of preparation for college. Our elementary schools are dominated by the idea of a single type of scholarship which directly concerns a small minority of our children. If instead of our abstract and misleading notion of equal

educational opportunity for all, we should substitute the more concrete and sane idea of furnishing educational opportunities adapted to the needs of various groups of children, we might develop a system of education that should be actually and not merely nominally democratic.

If education is to enable each person to live the happiest and most useful life of which he is capable, it must meet all of the main requirements of such a life, not otherwise properly provided for. These may be roughly classified as the requirements of leisure and the requirements of vocational pursuits. The work of the elementary school is almost wholly designed to train children for the pursuits of leisure. The literature, history, geography, nature-study, music, and drawing are obviously adapted to the purposes of recreation and of general social intercourse rather than to the more specific purposes of vocational pursuits. Even arithmetic and manual training, which are commonly considered as of high "practical value," have mainly indirect application to the peculiar problems of most vocations. Even assuming that the school as now constituted furnishes adequate training for professional and commercial pursuits, it still remains that, for industrial and domestic pursuits, there is absolutely no systematic training in most of our schools. It is impossible, on any grounds consistent with true democracy, to justify a system of education that is adapted to the needs of a small minority only; that so far fails to meet the needs of the whole body of our boys and girls that more than two-thirds of them refuse to accept, as a free gift, even the training offered in the elementary period of eight years.

Individual differences in native capacities and in prospective careers of pupils, it has been seen, appear with increasing force as the children are passing thru the last few years of the elementary course. The disregard of these differences, in the organization of the schoolwork, has been pointed out as one of the chief reasons for the rapid loss of pupils during these years. There must be a reorganization of education, in accordance with the actual psychological development of children and with the requirements of genuine democracy, based upon a systematic recognition of special aptitudes.

Such a recognition supplies the rational ground for the distinction between elementary and secondary education. The distinction at present is purely formal and fortuitous and is evidently made at too late a period. Whatever may be the arbitrary and external organization of education, the actual secondary stage in the development of boys and girls will inevitably begin when the differences in their tastes, capacities, and ambitions become more conspicuous and important than the likenesses. The difference between elementary and secondary development is thus a matter of life; not a mere matter of convenient arrangement. Differences in abilities and in interests will always demand some differences in form of activity, and if these are not definitely provided in the school they will be found elsewhere, as they are at present during the last years of the elementary course. In view of the persistence with which we cling to our traditional organization of education, it might be supposed that a uniform

eight years' elementary course was guaranteed by Magna Charta or that it was proclaimed in the Declaration of Independence as one of the inalienable rights of man. As a matter of fact, in failing to make the transition from the elementary to the secondary stage in our school system correspond with its appearance in the development of our children, we are guilty either of indefensible stupidity or of deliberate malfeasance.

The provision of alternative courses for vocational training, before the end of the present eight-year elementary course, implies it is true that each child will be called upon to choose the course that he will pursue. Here we shall encounter a storm of protest against the introduction of the "elective system" at this early stage of children's careers. The arguments against "early specialization" are of course thoroly familiar. They were first brought forward with great vehemence in the discussions that accompanied the growth of the elective system in our colleges. They next appeared in the debate concerning the introduction of elective courses into our high schools. This debate is still in progress and the familiar arguments are constantly hurled by the reactionaries against the advocates of wider opportunity and greater freedom for pupils in high schools. These arguments will in turn be directed against every effort to extend the elective system backward to the logical beginning of the secondary stage of education. The outcome of the struggle between rigid prescription and free election must eventually be the same in all three of these fields, for the conflict is really one and not three. The question is whether human beings who differ widely in native gifts and acquired tendencies shall be forced to pursue a single conventional course of training, or have the privilege of choosing a course that will equip them not only for the worthy use of their leisure but for the intelligent pursuit of their vocations. Life itself is from the beginning an elective process—each person selecting from the complex whole of experience those elements that accord with his native and acquired interests and rejecting those elements that serve no useful purpose in his life. Mental growth, if we are to accept the teaching of modern psychology, consists in the development of a multitude of specific forms of reaction rather than of a few general faculties such as memory, judgment, and reasoning-power. We cannot, therefore, justify a study or a course of study on the basis of the discredited theory that a few general, mental faculties require the traditional school subjects for their proper discipline. As an individual mind can be expected to develop only a very small number of the innumerable reactions possible at any stage of its growth, the problem of education becomes in large measure the problem of providing situations favorable to the selection by each child of the reactions best suited to his needs. In the earlier stages of children's development these needs are fairly uniform and may be met by a relatively uniform program of studies. This is the proper period for elementary education. With the appearance of distinct differences in individual requirements, as we have seen, a uniform school course is inadequate to the needs of all types of children. At this point the period of secondary education rationally begins,

with its system of alternative courses adapted to the specific needs of various groups of children.

The elective system, then, is an unavoidable fact without regard to what the school organization may be at a given time and place. Under present conditions there are but two alternatives open to a pupil in our elementary schools. One is to continue in the single course offered by the schools; the other is to enter vocational work before the completion of the school course. The question is not, therefore, whether we shall extend the privilege of election to pupils in the elementary schools, but whether, by introducing courses for industrial and domestic training within the school, we shall widen the field within which election may be made.

A rational system of secondary education must provide not only for the training of special capacities but for making children conscious of the special capacities that they individually possess. One of the most serious weaknesses of the present organization of education is that the range of experience provided for in the schools is so narrow that many of the latent powers of children are not stimulated to activity. In some cases the special capacities of children appear early and in unmistakable form. In such cases it is relatively easy to supply the appropriate educational influences. More often, however, the specific characteristics of children require particularly favorable conditions to bring them to the surface. In order that a child may be placed in position to make proper choice of a school course and, ultimately, of a vocation, it is often essential, therefore, that means be taken to ascertain what are the native capacities upon which his success in every undertaking must very largely depend. These capacities cannot always be determined with reference merely to the desires of parents and of pupils or to such general advice as teachers and principals of schools are commonly qualified to give. Teachers must be equipped to recognize, to search for, and to interpret the evidences of special aptitude. This will necessitate a fuller recognition of the influence of heredity upon mental and moral traits, and a more vital and practical view of genetic psychology than is yet widely prevalent.

As to whether the school life of pupils can be prolonged by adequate provision for vocational training, our argument has been in the main indirect and deductive. In the absence of concrete data, however, such an argument is all that can be presented. It seems reasonable to assume that children will remain in school as long as they and their parents regard it as distinctly to their advantage to do so, and economic conditions do not prevent. The conclusion clearly indicated, accordingly, is that adequate provision for vocational training, beginning at about the sixth year of school, would tend to prolong the school life and increase the vocational efficiency of the great mass of children; especially of those who enter industrial and domestic pursuits.

The whole argument for vocational training is of course open to the familiar charge that it is basely utilitarian. As to the charge that vocational training is utilitarian, why should not the answer be one of "confession and avoidance."

Such training is utilitarian; but why basely so? Most men devote more than half of their waking hours to their vocations. Are their lives necessarily on that account basely utilitarian? Our war for independence had its origin in a question of taxation. Was it for that reason a basely utilitarian struggle for selfish ends? Almost every great national policy involves some matter of industry or commerce. Is our national life therefore unworthy of our loyal affection? The intellectual and moral progress of the race has always been in large measure dependent upon material and commercial prosperity. Are the achievements of the human spirit on that account insignificant or base? As a people we profess a belief in the dignity of work. Shall we hesitate to exemplify our belief by making it possible for every man to find his work and in his work to find a worthy means of enlarging and completing his life?

REMARKS BY PRESIDENT LEAVITT

I believe that Mr. Burks has shown that initial steps in industrial training should be given thru the agency of the present public-school system, whatever form of school may be added later, because an interest in and a respect for industrial work must be developed in the boy before the age of fourteen if we wish to hold him in even an industrial school after the law permits him to go to work. This of course applies only to the boys for whom industrial education is urged. Mr. Burks has shown that after fourteen these boys should be offered substantial vocational training.

Just what these vocational schools should teach, is, in most communities, yet to be determined by experimentation. That it must be practical and "real" is certain. This much we have learned from the manufacturers. They tell us that the work done must be submitted, as far as possible, to industrial tests rather than to "educational," that is to say "cultural," tests. At the works of the General Electric Company, Lynn, Mass., is what might be called a modern apprentice school. From it we may learn much. Mr. Alexander's discussion will not only inform us of this interesting and valuable experiment in vocational training, made by a corporation, primarily, we presume, for its own benefits and because of its own needs, but will give us many valuable suggestions for our guidance in determining the nature and scope of any industrial training wnich the public school may undertake.

INDUSTRIAL TRAINING AS VIEWED BY A MANUFACTURER

MAGNUS W. ALEXANDER, VICE-PRESIDENT, NATIONAL SOCIETY FOR PROMOTION OF INDUSTRIAL EDUCATION, ENGINEER, GENERAL ELECTRIC COMPANY, LYNN, MASS.

It is generally conceded that the further development of American industries, and especially the mechanical trades, is endangered thru an insufficient supply of properly trained skilled mechanics. The reason for this condition may be found in the enormous expansion of these industries within the last fifteen years, which has made the demand for skilled workmen far exceed the

supply, and in the growing tendency towards specialization which today permeates all fields of industrial activity. Where heretofore skilled labor was required in many processes of manufacture, specialization has permitted the employment of large numbers of unskilled workmen. Manufacturers have taken liberal advantage of this new economic condition, overlooking, however, the necessity of training skilled mechanics who are capable of operating and maintaining in good working-order the complicated machinery which specialization has brought into use, and who can act as leaders and subleaders in the ever-growing industrial army. Manufacturers relinquished their responsibility so much the more readily in view of the new attitude of the public-school system towards the industrial needs of the country.

Within the last twenty-five years, the public-school system, recognizing the necessity for semi-vocational and vocational training, introduced manual training, first in the high schools, and later on in the grammar schools. It became apparent, however, that the public schools were not answering adequately the demands of modern industries: manual training was not giving the boys the practical equipment that would enable them to enter industrial life on any plane higher than that of a beginner.

The rapid changes of the industrial system, furthermore, made such demands on the workmen that the educational system found itself unable to adjust itself quickly to their needs.

Manufacturers and educators are now alive to the seriousness of the problem of bringing the school system into harmony with the modern industrialism of the country. The genuine interest manifested on both sides indicates a keen observation of the situation and the desire for a proper solution. Hearty co-operation between the teachers who prepare the boys for life and the manufacturers and business men who employ them as economic units will hasten the solution of the problem and bring about the desired results.

Entering into the consideration are the workmen employed at the present time in unskilled labor who might be elevated industrially by supplemental education, and also the new recruits who are about to enter upon an industrial career. The latter class is, of course, of far greater importance than the former, in that it determines the character of the future industrial army. The proper training of boys for their life's work will, furthermore, materially minimize the necessity for continuation schools and other supplemental education for adults.

The principal agencies for training boys systematically for skilled work are trade schools and apprenticeships. The trade-school problem is primarily the concern of the state, which should equip boys with such knowledge as will fit them to become self-supporting citizens. The school system of a community should offer industrial training for those activities which are peculiar to its locality. Although educational experts are giving much thought to this problem, their ideas are by no means clarified into a consensus of opinion. Some advocate the establishment of additional technical high schools: others

believe in manual training in the lower grades of the elementary schools; many contend for a more practical training even to the extent of trade instruction; while some now urge the creation of elective industrial classes into which grammar-school boys may enter.

Apprenticeship systems, on the other hand, are the concern of the manufacturers, who in this way train their own supply of skilled artisans; and according to the breadth of view with which manufacturers develop their systems, they are contributing more or less to the solution of the problem of making the boy's educational equipment fit his industrial needs. Apprenticeship systems are flexible and can, therefore, adjust themselves quickly to the changing industrial conditions; they present concrete examples of industrial training, a study of which will point out to educators the principles which should underlie an effective system of public industrial schools, where skill and intelligence may be developed in proper correlation.

A significant example of what may be accomplished by a well-conducted apprenticeship system may be found at the works of the General Electric Company at Lynn, Mass. The establishment of this system was the outcome of a careful study of existing apprenticeship systems. Thirty or forty years ago when the entrance upon a skilled trade was universally made thru the door of an apprenticeship, a boy was apprenticed to a journeyman who practiced the trade in all its parts. Having a personal interest in the boy, the journeyman initiated him into the mysteries and arts of the trade, until the apprentice after five or six years of tutelage took and held his place by the side of his master. The introduction of the factory system brought about a change in the condition of the apprentice. He was now assigned to a department, the foreman of which was expected to teach him as the journeyman master had done heretofore. The shop foreman, who looked after a number of workmen and the work of the department in general, did not, of course, take the same personal interest in the boy as the journeyman heretofore had done, and very often delegated his function of teaching to an assistant. As the shop departments grew and a larger percentage of unskilled labor was employed in the factory, the foreman or his assistants felt less inclined, and were in fact less able, to devote special attention to the training of the boy. They hesitated to put him on a machine, both for fear that he might injure the same because of insufficient personal attention, and also for reasons of production which required the utilization of every machine to the fullest extent. The advantages for an apprentice in one department, furthermore, were often unequal to those in another department; this being due to the kind of work preformed and the amount of production. In order to overcome these unequal conditions, a supervisor of apprentices was appointed in some of the factories, whose duty it was to look after the interests of the apprentices and to transfer them from one department to another without interfering with the prerogatives and disciplinary supervision of the foremen; and to the extent to which the super-

visor possessed special efficiency and tact for this work, he fulfilled his duties to the advantage of both the employer and the apprentice.

In this system, however, there remained a weakness, in that the apprentice was trained by the foreman or assistant foreman of the department who were chosen for their positions on account of their skill and special fitness for the work and not for any ability for instructing boys. It is a well-known fact that few men in any walk of life, with the exception of professional teachers, are able to impart information in a satisfactory manner, although they themselves may possess knowledge and be able to apply it to their work.

The General Electric Company at Lynn, therefore, took the next logical step in the development of apprenticeship systems. It appointed a supervisor of apprentices, but also placed him in charge of a special training-department where the boys might receive their initial training under expert supervision in a thoro and systematic manner. The training-room is simply a part of the whole factory, set aside for the sole purpose of training apprentices; and is provided with a full complement of machines and tools and the most instructive work that the factory contains at any time. A separate training-room for machinist and tool-maker apprentices and one for pattern-makers are in operation at Lynn, and it is the intention to establish another for molder apprentices at an early date.

Under the system prevailing at Lynn, every boy who wishes to learn a trade must serve a trial period of two months in the training-room. During that time he is closely observed by the supervisor of apprentices, both as to his mental and moral make-up and as to his ability for and attitude toward the practical work. Immediately upon entering the training-room, the young candidate is put at a machine and required to perform useful work. If he proves, during the trial period, that he possesses the right qualifications, he is allowed to sign the regular apprenticeship agreement, which calls for a service of four years for machinist, tool-maker and pattern-maker apprentices, and three years for molder apprentices. The time of the trial period is included in the total time of service. The apprentice remains now in the training-room for a period of about two years, according to his individual ability; and during that time, is given an opportunity to work with the different machines and tools and to perform different operations on a variety of work. At the end of this period, he has gained a general knowledge of the trade and an ability for the work which must now be rounded out by a longer experience on a larger variety of work, such as the factory itself offers. The apprentice is, therefore, transferred from the training-room at the end of about two years to different departments of the factory, until at the end of the four years' term he is well qualified to assume a position as regular journeyman at journeyman's wages.

All work performed in the training-room is of commercial character; thus the training of apprentices on such work is of commercial value to the boy, in that it trains him in, rather than for, industrial life, and instils in him

a proper appreciation of the value of time and money. Some of the machines in the training-room are of the latest and most improved pattern, while some are second-hand tools, half of which have been rescued from the scrap heap. The use of old machines serves a twofold purpose, the economic and the educational; it prevents the abuse and injury of high-priced modern machinery which is apt to occur with boys who have not had experience in the handling of machines; and it affords an opportunity for repairing machine tools, which is an excellent training for a future mechanic. The training-room, however, presents a splendid opportunity for stimulating the apprentices to develop labor-saving devices and processes for the manufacture of different articles, thereby giving free play to the exercise of inventive ingenuity. The boys are taught to instruct others; for it is the aim of the General Electric Company to create a supply of skilled mechanics from whom the assistant foremen, foremen, and superintendents of the company may be chosen. Each boy, therefore, must help to break in a less advanced apprentice in one of the operations before he himself may advance to a more difficult task. Thus, if an apprentice has acquired efficiency both as to speed and accuracy in the drilling of holes, he is utilized as a boy-teacher in initiating another apprentice who has not yet learned how to drill holes, before he himself may receive instruction in the tapping of holes, for instance, from an older apprentice. The regular instructor, however, starts off the team of boy-teacher and boy-pupil and follows their joint work from time to time thruout the day; this arrangement permits the instructor to supervise a large number of such teams, in addition to the regular work of the department. One instructor may easily take charge of fifty or sixty apprentices and train them well. The boy-teacher will naturally put forth his best efforts to impress the boy-pupil with his own achievements and the latter will often ask questions of the former that, out of false pride, he would not ask of the regular instructor. From a business standpoint the economy of this arrangement is commendable. Pedagogically this pupil-teacher system is significant; for it tends to throw boys upon their own resources, thereby making them think for themselves; it develops in them the power to impart information and make others perform the processes which they themselves understand; and, finally, it initiates them into the art of handling work and workmen. A possession of these qualifications determines to a large extent the success of a foreman, superintendent and in fact any leader of men in whatever walk of life.

The General Electric Company has arranged the wage scale for apprentices with a view of making them self-supporting from the beginning, even during the trial period of service, so that any boy desiring to learn a trade may be enabled to avail himself of the opportunity regardless of the financial condition of his parents. In round figures each apprentice receives $5.00 per week for the first year, $6.50 per week for the second year, $8.00 per week for the third year, and $9.50 per week for the fourth year, with a cash bonus of $100.00 at the termination of the course when a certificate of apprentice-

ship is awarded to the graduate. He is encouraged to remain in the employ of the company at fair wages, but if he desires to acquire some outside experience, he is not discouraged in his intentions. Experience has shown that most of those who, upon graduation, start on what used to be called in the old German guild system, "Die Wanderjahre," return after a short while to the Lynn works to their old friends and associates.

As previously stated, skill combined with intelligence must be the basis of all effective trade training. To give this intelligence, the General Electric Company has established a school in connection with the apprenticeship course, in which instruction of an eminently practical character is given for the purpose of supplementing and amplifying the practical work of the shop. Each apprentice is obliged to spend in the classroom six hours per week out of his regular time of employment, during which time he receives the same wages as if he were working at the bench or at the machine. This expenditure by the company, which has proved after all to be an excellent investment, removes the temptation from certain boys to sacrifice an education and the opportunity for future financial returns for the immediate small remuneration, minus a hopeful outlook. The teachers in the classroom who are selected from the staff of engineers, draftsmen, and foremen of the General Electric Company, and devote part of their time to the work of teaching, are men of good standing in their profession, who have natural ability for teaching. They are chosen in preference to professional educators on account of their practical and intimate knowledge of the needs of the factory and the industries in general. Their work covers instruction in that branch of mathematics, physics, engineering, and mechanical drawing which forms a necessary part of the equipment of a skilled artisan. The theory of these sciences is taught in reference to the concrete problems of the factory, which makes the study not only interesting because real, but also more fruitful in that it initiates the apprentice into the technicalities of the business he is to follow later on. Mathematics covers instruction both in arithmetic and algebra, in the elementary processes of addition, subtraction, multiplication and division relative to whole numbers, decimals, and common fractions, percentage, ratio and proportion, square and cube root; it deals with that part of geometry which concerns the construction of geometrical figures and the calculation of their surfaces and cubical contents; and it gives such an insight into trigonometry as will enable one to understand the elements of the science as applied to the solution of practical problems based on the right and oblique triangle. Physics is taught largely along experimental lines so that the boys may deduce therefrom the laws governing the simple machines, the lever, the screw, the inclined plane, the pulley, the wheel and axle; instruction is also given in elementary magnetism and electricity. Under the heading "Engineering" are explained the different forms of power transmission, the characteristics of the important materials used in engineering construction, and the use of the formulae by which the proper distribution of material may be determined to suit different conditions,

the best forms of design of the principal machine parts, and finally the important general and electric machines. Great stress is, of course, laid upon the study of mechanical drawing, which is, however, not pursued as much with the object of making machine draftsmen of the apprentices as with the aim of enabling them to sketch the auxiliary tools, jigs, and fixtures needed in an economic manufacture on a large scale. Every skilled mechanic should have a knowledge of tool design; and the work of the draftsman and the engineer will prove to be of more practical value if he has this proficiency. All thru the course the boy is taught to express himself both orally and in writing. This work in English is found to be very essential in giving the boys that intelligence which should accompany skill.

In all this, personal instruction is emphasized. The needs of each apprentice are given special attention; no boy is rushed thru the program for the sake of covering the course. As in the practical so in the educational work, each apprentice must prove his efficiency in one process before he is advanced to the next. The four years' course of apprenticeship, therefore, gives each boy such manual and mental equipment as is proportional to his individual capacity.

Whether the manufacturer is to provide the supply of skilled mechanics thru the apprenticeship system in the factory, or the public-school system is ultimately to establish industrial schools for this purpose, there remains one fact highly essential in the consideration of industrial education—the boy must first of all have a respect for manual work, which may profitably be his life's occupation. The disinclination of the American youth to enter the mechanical trades is one of the great causes of the scarcity of skilled labor. To awaken in the boy a respect for, and an interest in, useful work is the great responsibility of the teacher. Genuine interest in the industrial activities of the community in which the school is located and co-operation with business men will greatly facilitate the teacher's efforts, as it will make him see clearly his duty toward the vast majority of boys who are going to earn their daily bread at the bench or at the machine. Every gathering of teachers should avail itself of the opportunity of listening to an address by a manufacturer or business man on what seems to him to be the defects of the school product; as there should be, in my opinion, an effort on the part of practical men to hear frequently from the teachers in regard to the aims of the schools and the help which the practical men may extend in achieving these aims. A visit, once or twice a year, of the graduating classes of the public schools to the workshops of the town or vicinity will awaken in many a boy a true desire for his future work; he will start out with a purpose in life and will therefore succeed better than the one who embarks upon the ocean of life's work without any definite aim other than that of making money. Let the teacher himself realize that the occupation of the skilled mechanic is indeed a dignified calling; and he will have then no difficulty in making the boys see it in the same light.

ALFRED GUILLOU, Throop Polytechnic Institute Pasadena, Cal.—During the last five years it has been my privilege to have been closely in touch with a high school and with an elementary school, both of which made the effort to carry on, and to a large extent succeeded in maintaining, courses of study which very closely approximated the ideals that have been discussed this morning. My three children have attended these schools and as I have had no connection with them beyond this fact and my interest in their methods, I feel that I have been a fairly disinterested critic. I refer to Throop Institute, at Pasadena, which besides the old-fashioned title of institute retains for its high school, the equally old-fashioned name, "academy."

But both the elementary school and the academy are anything but old-fashioned in practice. The academy it is true, fits young people for college and is accredited—faults which are at least excusable—but, besides the ordinary academic subjects, it offers its students on the vocational side the following: drawing, free hand and mechanical, especially working drawings, design, wood-carving, clay-modeling, cooking, sewing, woodshop, blacksmithing, pattern-making, and machine shop; on the scientific side it offers biology, zoölogy, botany, physiography, physics, and chemistry. Certain academic subjects are required if the student elects to take a diploma; if, however, as is the case with one of my boys, he is indifferent to the glamours of graduation, the student has free election of any subject in the curriculum, the only limitation being a maximum of three book subjects a day.

In the elementary school the right of election begins not in the sixth grade as suggested by Dr. Burks, but in the first grade. My little girl of eight years in her second grade enjoys the right of election equally with her brother of seventeen in the fourth year of the academy. The elementary school offers this election as to all the ordinary school subjects, also as to these vocational subjects: cooking, sewing, woodworking, paper-box making, wood carving, clay modeling, design, freehand and working drawing, and as to scientific work in elementary physics and chemistry. There is no restriction as to grades, for elementary-school children can elect academy subjects and grades to which they show themselves equal.

I have stated these facts thus fully to show you how nearly this school comes to the ideals of Mr. Johnson and Dr. Burks; and I may add that having in mind my own five years practical experience with my own children and other children under this régime, I have followed with both interest and amusement the theoretical hopes and fears that have manifested themselves this morning. First of all let me assure you that your fears are groundless. I have never met and never heard of any serious mistake arising from the practice of giving the elective right to elementary children. Per contra, I have seen very great good come from this method. My own children have exercised the right without restriction either at school or at home; and they have never made a mistake, altho I will confess that their parents have twice given them very bad advice, which fortunately was followed only in one instance. There can be no question that my children's election of subjects is on the whole wiser than are my tentative selections for them.

Secondly, let me dampen your hopes. Election is not the cure-all that some of you seem to hope. While the eighth grade is the largest at Throop, and the seventh is larger than the sixth, many children drop out and go to work; it is the accretions that swell the upper grades. I am satisfied that election as to vocational subjects is not in itself a satisfactory preventive of children leaving school. I do not believe that any choice or arrangement of the subject-matter of the curriculum is enough in itself. This statement brings me to my third and last point.

My experience with my own and other children under the elective system convinces me that under that system quite as much as under the hard and fast system, the element of first importance is the personality of the teacher. Again and again I have known children to elect a subject because of their eagerness for it, and before their selection was made final by announcement, throw the subject overboard, because of the teacher assigned to the particular class. I have known children who had taken a subject for a year and were

anxious to continue it, decide not to do so, because of the personality of the teacher. This is, of course, a large subject. Nor is it a very cheerful subject, but none the less it is true and it is vital. I will only say that I think the views of this morning have shared to some extent the current fault of much of our modern work—an overvaluing of subject-matter and a forgetting of the tremendous influence of personality. My boy of fourteen assures me confidently, "A great many more kids leave school because the teachers are cranky and no good, than because they sour on the things that are taught."

May not this be deep wisdom from the mouth of a modern babe?

RATIONAL ART AND MANUAL TRAINING IN RURAL SCHOOLS

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Let us first consider mechanism from an evolutionary and psychological standpoint to justify the correlation of art-study and manual-training work.

The conceptive in mechanism.—To strengthen and cultivate the powers of the brain of man is rightfully our greatest aim in education. Tho our ideas and methods change, we still hold that education means, first, mental development, whose produce is culture and aptitude, that give men and women the most joy and power in life. Many enthusiasts of manual expression are eager for the training of the hand and believe that the brain thru this activity will receive its greatest strength. Others hold that the greatest good will result from the mind receiving the first stimulus. To the second class I belong. I desire the pupil or student under my direction to receive, first of all, training that will tend to create conceptive centers in the brain. Such mental activities as the child in the kindergarten exhibits can be fostered and cultivated by well-directed industrial work. I use the word "industrial" advisedly, because I believe that industrial training should precede the manual training that promotes skill of hand. I desire that the word "industry" shall suggest love for work. I believe in the muscles being in the service of the brain, and not the brain subordinate to the manual activities. I believe that all organized matter is conceived mentally before it is wrought out in material form. In all events, with the development of the child, attention should be given to the conceptive faculties, for the benefit of the imaginary and subjective possibilities.

Production thru necessity.—We all agree that necessity is the parent of industrial activity and that especially in structural science do food, shelter, and clothing generate the idea of the cup and transportation vessel, as well as the hut, home, temple; the coat of skin and rich mantle. Necessity will present the purpose for a thing; all else is left to the brain, and its agencies of innate power, influence, and adaptation.

External influence and creative processes.—It seems that as the brain develops, it becomes sensitive to outer impressions—to external impulses and centers of interest. The sun has in all ages caught the interest of world children insomuch that they have worshiped, because it is the great dispenser of heat and light. I believe that objective form in the world promotes the subjective

creation of form. All the beauties of this wondrous earth, in flower and leaf, form and color, in crystal and atom, have proportion and unity. Thus the objective world becomes a stimulus for concepts and the pattern for material structure. Then we have the dreamer-builder man, who, whether conscious or unconscious of this objective agent, and naturally sensitive to all around him, works in accordance with the structural universe. We take it for granted that all the objective beautiful in the world is classified for educational purposes under nature-study. I have come to the conclusion, that, from a psychological point of view, worthy, clean production evolves when the cell of the brain has first been exposed, as it were, to art environment, to nature influences. Art-study and art-influence are especially adapted for good-taste promotion in regard to creative form. The sacred lotus of the Nile influenced, not only the ornament of Egypt, but the form of the structure, especially in detailed parts. The cave, seen by primitive man, has suggested the room. The mountain stream with unseen chisel has shaped out the glen, and has said to the sculptor, in the words of the great Master, "Go thou and do likewise," and he has responded to the command. Most of the world's sculptors have lived the better part of their productive lives in mountain regions. Artists paint pictures because God has tinted beauty in the sky, and in the distance and in the river. I feel that educationally we can well afford to give some attention with the child to art-study and nature-study, at the same time when nerve cells are in the process of formation—not to the extent of creating any special aptitude, but merely to refine.

Formation and its adaptation to conditions.—Then constructional art derives its form from two sources, geometry and nature, or nature and geometry. Thru the evolutionary methods of construction in the world, the forms of nature that have fitted man's structural ways, have become typed and fixed—geometric—until a basis has been formed for a means of building.

I feel that thru inheritance a child is endowed mentally with, at least, embryonic knowledge of geometric form, insomuch that type forms are unconsciously produced by him before he can possibly receive external or geometric influence.

Animate forms continually change because of their station influence.

Building in the world has been greatly influenced by religion. Altitudes and temperatures affect it.

The adaptation of energies in the scientific field continually changes the original form. Compare the locomotive or steamboat with their crude originals. It becomes at once apparent that innumerable changes have been made for more perfect manifestation.

All the fine lines of constructional art have derived their form decidedly from nature. A vase of clay may take the conventional or abstract shape of the lotus lily or sego lily, and be good art, inasmuch as there is consistency of purpose. The basket may evolve from a fruit form, the dish from the lake, thus giving abundant opportunity for correlation of subjects.

Meaning of manual training in rural schools.—As we consider manual training two thoughts are prominent: first, manual training stands for the adaptation of muscular energy to life-benefit purposes; secondly, the educational recognition of creative and beautiful expression in material substances.

We congratulate ourselves in America on the effort put forth to maintain the correlation of brain and hand, but must admit that the American commercial spirit has so far affected American art that we do not recognize the importance of structural stability. The transient art of the Columbian and Louisiana Purchase Expositions is in keeping with this thought. Far different is it with the art of the nations of northern Europe. To remedy this evil we must look to the schools.

Art and manual training means the combination, psychologically and pedagogically, of the world aesthetic and even spiritual with the world active and constructive.

The wrong gage.—Manual training is in the public and rural schools not only for the cultivation of the child with apt hand or talent, but it is established for *all children.*

In so many instances do we exalt the genius as the criterion by which to gage the inapt child. Our exhibitions stand really for the work of a special few and we give the impression to the observer that this work is done by the class or school. Parents will tolerate coaching the genius of their boy or girl even to the extreme, and at the cost of nerve energy. I believe that it is just as injurious to a child to require or accept too much work done as it is to accept too little. It is soon enough in the high school or better yet, in the college, to recognize to any extent personal genius ability. Let us not specialize in the elementary grades; that is, get the prevalent idea that a boy might, with all propriety be "turned out" a carpenter, or a girl "turned out" a dressmaker at the end of the eighth year. This idea is almost as absurd at the end of four years of the high school. This manual exercise and manual training is designed to be of much help, nevertheless, to the practical cultivation of the child who has special aptitude in structural lines. In this instance attention should not be directed to the fostering of special aptitudes at the expense of fundamental collateral subjects.

The adaptation of ideals.—Supervision experience of four years in a country of rural schools has made me practically conscious that a child should be aesthetically developed and manually trained thru the possibilities of *his own* industrial environment. I hold that wherever there is employment enough to grant men a livelihood thru the labor of their hands and the honest sweat of their brows, there are, too, facilities for materials, tools, and exercises that will be of the most industrial value to the children of such a location.

Manual training may be accomplished thru the use of woods from our own near timber land, or thru the use of soil about the school premises, or thru the use of local clays, fibers, and every-day household fabrics. Our children have made beautiful models in wood prepared from personally hewn and cured

stock; useful and beautiful baskets from willows or grasses or husks or straw or bark from the fields and groves near the school building. Knowledge of environment possibilities is thus introduced, to the child's benefit.

What great people or nation is there that has not succeeded thru the possibilities of its station on the earth, and that has not gained strength in the finding of those avenues for growth?

Imported materials are adapted to our idea courses only, and there is no question but that they give the opportunity for some hand training; they promote skill, it is true, but there is failure in their use with the child from an industrial standpoint, especially in the rural schools. Faulty, indeed, was the notion of a teacher in a western state, who wanted sand shipped from Vermont for her sand table.

The selection of materials from other climes is of some benefit from a correlative standpoint, I will grant, but let us remember the knowledge gained by the boy or girl of the spot of earth that gives them life is of far more benefit than the knowledge of a rattan growth on a far-away island. It is not in keeping with industrial manual-training ideals, to benefit some house dealing in reeds and raphias, at the expense of the child educationally, who should be taught to use the products of his environment.

Kind of teachers.—Supervisors and teachers should be furnished by colleges, who have a broad, well-trained knowledge that can be adapted directly to industrial conditions. A teacher in art and manual training must be willing to sacrifice his petty likings for a certain line of tools or materials or work, should that sacrifice benefit the child. It is true that any well-directed line of activity for the brain and hand will give general benefit and train to skill, but now is the time when the most good in every way must be received at the opportune moment. Remember, teachers, it is not yourself that you are working for, in the main. You are in the presence of constantly forming nerve cells and habits of industry that we hope are to last always. Some expres ions and some ways of work may be forgotten and leave only the refined channel thru which they have passed, but the training is done to stay, or to be undone by toil and pain at some future day.

The teacher should know that a child's activities need attention, and that there is a hand and heart coupled closely with the brain to receive educational nourishment. This teacher should become acquainted with the industrial activities of the locality. In the district where I live, farming and the manufacture of woolen goods are the chief industries. I cannot be a thoro manual trainer from an industrial standpoint until I understand these lines of work. The teacher must continually bear in mind that his work in the public schools is elementary to higher methods of construction.

Suggestions as to aims.—Collections and classifications of native materials should be made and adapted in all possible ways. Foreign materials should be used correlatively. Tools and machinery should be introduced that will aid the creative expression of the brain and hand.

The children should be encouraged to feel that cleanliness and neatness is necessary to all art expression.

Positive position at work is necessary from a physical standpoint, that rest, where regulated by judgment, is beneficial.

The school surroundings should be aesthetical and adapted to mind construction.

Conscientious effort and product should always be recognized. Put a premium on original work. Aim to have all models finished.

An exhibition at the close of the school year has great value as all art in the world is to be seen.

Well-directed exercise from a physical standpoint may be given that will develop the hands to skill. General physical culture should be considered as collateral with manual training.

Suggestive course for rural schools.—I am of the opinion that an impetus in art-work is helpful to the introduction of art and manual training correlation or constructive art expression. The emphasis of this conceptive generating subject need not be felt by any others than the supervisors, teachers, and general school management. Art study is very possible under a teacher who knows his business. It is a subject that will report the activities of a child in a manner that is gratifying to most parents.

Useful, practical exercises possess educational value. I believe that a manual training product that has industrial benefit for a boy or girl should have three factors in organization: first, the thing should be suggestive by the call of utility; secondly, it should have geometric basis; thirdly, it should be beautiful as to proportion and consistency of purpose. To beautify does not mean to decorate in this instance; it means to use art principles and agencies to the extent, only, that the product is brought into harmony with the idea of its being, and becomes pleasing to refined taste because of the ornamentation or finish. The art of a product of work should be in the work expressed, in the form and in the individuality of the skill displayed. All art, especially as a medium of culture in rural schools and public schools anywhere is simply creative expression, and soul expression. Drawing is the delineative part of the division of expression that deals with materials and mediums in a graphic manner.

First in art work, I recommend clay as a medium for general representation, and creative expression, especially in the primary grades. This medium is possible of supply in all localities and inexpensive. Most clays are self-disinfecting. With careful thought and method this medium can be easily supplied and be successfully handled in classes. This medium may be used again and again. Just at this point, allow me to suggest that care should be taken as to the destruction of products before the little makers. Many times teachers unconsciously bring discouragement to the child, and suggest negative habits by destroying the work in the child's presence. Following clay lessons, subjective and representative work in paper cutting should be given. Then the continuation of delineation is presented by the child working with some large

medium, applied with brush perhaps—mass expression. As soon as you feel that the child is prepared and anxious, introduce color.

It is not necessary that children have a medium in their hands for all art lessons. Color and beauty may be talked of to the child and an enjoyment reached. The appreciation of the world's beautiful and the world beautified is the greatest aim in the art education of children.

Kinds of work possible of introduction.—Art and manual training in the rural school is established educationally that it may aid in the all-round development of true, clean individuality in each boy and girl. It should not be introduced with utilization aims to any great extent in the elementary school. For the sake of emphasis, I repeat that all problems should have three general requisites; consistency as to use, geometric basis, and an element of beauty.

In almost all rural localities, the following lines of work may be introduced with slight tool equipment;

ART WORK

Primary—

Clay molding, with local clay.
Paper cutting, design, representation, free hand.
Brush drawing, objective and subjective.
Charcoal and chalk painting.
Color study.
Design cutting.
Paper picture work.

Grammar grades—

Subjective expression with geometric motif.
Clay molding, objective, subjective, and illustrative.
Brush drawing, line drawing.
Free-hand drawing.
Sketching.
Charcoal tone study, picture making.
Pencil painting.
Design.

MECHANISM

Primary—

Simple wood construction, with prepared stock and nails, local material.
Paper cutting, folding, pasting.
Paper construction.
Pasteboard construction.
Spool knitting, braiding, weaving with twines and string that the children have collected.
Textile art work, primary.
Constructional needle-work, primary, with material that is furnished by the child.

Grammar grades—

$\frac{3}{16}$ stock whittling.
Fret sawing.
Clay carving, wirework, grass, husk, straw, willow, or other fiber basketry. Design.
Knife carving.
Heavy whittling.
Bench Sloyd.

Domestic art, ornamental and constructional.
Gardening, primary agriculture. Perhaps at first at home of the child, on small plot.
Cooking, primary domestic science.

The above is designed to be correlative with all possible subjects of the school.

It is not the design that all the course work mentioned be given at one time. The work is selected by the district teacher with reference to possibilities.

As many phases of work as possible should be given the child during the elementary-school period, for by this means the hand receives a broader, more sensitive training.

Clean hands.—The influence of the great, the overwhelming, the aesthetic upon the imitative mind and constructive activities of the human being culminates in a feeling of universal consistency; as consciousness develops, a love is established for harmony with the expressed truth in and thruout the universe. An appreciation of God's creations tends to moral stability.

To direct all the expression work of the head and heart and hand to the end of making a moral, refined, and appreciative man and woman is the great end in view. This is the science of the beautiful.

MANUAL TRAINING IN THE INDIAN SCHOOLS

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The development of the hands and the motor activities to their highest powers, and the gradual unfolding of the potential gifts they possess from nature depends in no small degree on the training of the brain to usefulness. The idea seems odd and yet the thought is profoundly true that the purely physically inspired acts of the hand in work are ignoble and attain to true nobility and grandeur only when thought and reasoning and judgment determine them. Take away from the unique and highly valued and tremendously useful products of the hand the incentive and substantial thought furnished by the mind, and those products always slump to the commonplace, and mediocrity stamps their work.

Every educational system of shop instruction or industrial training should be co-ordinated with intellectual development. We cannot, tho we often try, attain success with the one without, in some way, making progress with the other. They are inter-dependent, correlative, co-operative. Material development has its root in a high standard of national literacy and education usually prospers when the nation does.

I have touched but lightly on the inter-twining necessities of head-training and hand-training because therein, in a most paramount way, depend successful results. There must be, because anything else is fatal to the best interests of both, harmony between the workshop and the classroom.

In organizing industrial work our endeavor at Haskell Institute has been to carefully put into practice certain guiding principles—elemental because of

their simplicity, but fundamental in importance. In the first place the end and purpose of our work is quickly to arouse the Indian to a material awakening by placing within his grasp opportunities for learning a trade of most usefulness to himself and to his people, and of his own choosing.

Careful attention is given to the shop. This should be roomy, well lighted, and ventilated. A high ceiling of from twelve to fifteen feet is desirable, and this and the walls should preferably be finished with brick or wood; or, if plaster is used, it should be a cement plaster. Lime plaster is easily damaged when struck by a piece of iron or timber. A light buff tint with a five-foot border of the same color, intensified by the addition of a little red, has proven a very satisfactory color. It gives a maximum of light and seems to be restful to the eyes.

Each student should be supplied with a definite place to work and wherever possible should be given a place, under lock and key, to keep his "kit" of tools. This will create in the student a pride in his equipment and a desire to take care of the tools intrusted to him. The indiscriminate use of the same edge tools by all precludes the probability that they will be taken care of by anyone in particular.

In all shopwork a definite course of study and work should be mapped out. No instructor can, with impunity, do his work in a shambling, harum-scarum manner, trusting to fickle chance or the inspiration of the moment that the ultimate result will be satisfactory, and therefore doing no planning for the morrow or the month to come. Every student should have reasonable assurance before commencing on his work of the ground he is expected to cover. This can best be done by the combined use of (1) a printed statement, (2) a series of drawings showing the various steps in the work, and (3) a set of models showing the work itself skilfully and accurately executed. Such a procedure is not only highly important for the immediate information and enlightenment of the student, but, if system is to prevail, and a large number of students are handled, it is really indispensable.

In all work, economy of materials should be insisted on. Students are too apt to become careless in this regard, spoiling a large board in order to cut off a small piece, or cutting from a long iron bar, when the necessary material could be had by examining the "scrap pile." Boys get the idea—and in many instances grown-ups do the same—that the government defrays the expenses from its supposedly inexhaustible treasure store, and that consequently it makes no particular difference whether they waste or save. It is an evil habit, and, begun early in life, would be difficult to eradicate later on in maturity. This matter is of especial importance in Indian schools. Indian boys and girls are naturally wasteful and unless curbed in their youth will stick to the unfrugal ways of their fathers. Each industrial department should have a "scrap pile" and students can soon be taught economical ways of using material. When old material is taken out of buildings and is not decayed, use can be made of it on the farm, or for outside improvements. I have taken

this up at length because practical lessons in economy are invaluable to anyone, and especially to the Indian.

In carrying on industrial instruction in Indian schools two phases of the work must be taken into consideration: (1) In every shop, of every Indian school, productive work with a real market value must be done; repairs on buildings and the school plant cannot be neglected except with great risk and attendant loss; equipment is urgently needed from time to time. We believe that a valuable opportunity in application is presented and a fine lesson is learned by students in being required to do this work themselves. Their education thus rises above the misnomer of a forced gratuity. They have really put forth some legitimate personal effort to gain it. (2) Instruction must be given regularly and systematically so that the students will become something more than imitators and automatons—will in fact become thinking workmen, ever browsing about for the new, elevating themselves and their people. Such men, with careful training, prove a blessing to the craft to which they belong, and raise still higher the honored name and calling of carpenter, blacksmith, machinist, mason, farmer, because of the lives they live and the works they perform.

Where mechanics with no previous teaching experience must be employed as instructors and, where instruction and production occupy a place side by side, our plan at Haskell may be of interest and hold something of suggestion.

All students work one half-day in the workshop or on the farm and devote the other half-day to classroom exercises. Out of the twenty hours per week in the shop three periods of one and a half hours each are set apart for active instruction. During this time by talks, demonstrations, or individual work, instruction is given in the principles and practices of the trade.

A course of study and practice has been evolved which combines by practical exercises the essentials of the trade. We feel that this plan offers all the additional pedagogic advantages presented by a course of manual training in the public school. After the first few exercises in the use of tools, each succeeding exercise presents a new principle to be mastered or something tangible to be done. We do not rest content with teaching the making of a lap-joint, a mortise and tenon joint, a dovetailed joint, a splice joint, et cetera. Rather, we advance a bit farther and take a decisive step. After the pupil is able to make a joint he is immediately taught the application of that knowledge and skill by making a useful article of furniture, a household utensil, or some part of a house. Thus, he is daily receiving practical lessons in home-building. And so with welding, upsetting or bending at the forge, cutting or stitching in the shoeshop, chipping, filing, or turning by the apprentices in the machine-shop.

When the period of instruction is over and the students are detailed to the regular tasks of productive activity, the instructor keeps in mind the advancement of the pupil. If a boy during the previous lesson has been engaged on an exercise in planing he is later given productive work to surface which will

give him experience and training in the use and care of the plane. If, perchance, the boy has been having exercise work in nailing and cross-cut sawing, productive work in laying pine floors, or sheathing the side of the house is given him to do. By the next lesson the students have necessarily made sufficient progress so that with rapidity the next advanced step in the trade is undertaken. Such a course is followed in all trades instruction.

By conducting the work along the lines I have mentioned, rapid and substantial progress can be made. This is not a highly colored picture or a silver-lined theory of impracticability. The thing is practicable and is worked out each day of the school year at Haskell. Of course I understand that such a procedure would be difficult in public schools where of necessity the time element must be considered, and where no productive work as such is carried on. But even there it would be well to ponder such a course. Is there not right here a possible suggestion for public-school work in the higher grades? Should the motor faculties be trained abstractly, and with no thought whatever to indispensable, practical ends? Is the child of the white less in need of a training in the practical things of life than the offspring of the red?

From what I have already said you no doubt gain the central idea I wish to convey. Vitilize the instruction. Let it deal with the real things which the student must know and face when his school days are over. The teaching of principles is vastly important; but by all means, teach their practical application, or they will become meaningless and soon be forgotten. Let down the cumbersome barriers that shut out the practical from view and get down to the bedrock work of instruction.

From time to time rather spasmodic attempts have been made in some of the larger non-reservation schools to give instruction in mechanical drawing. From what I have been able to learn the results from these efforts have not been entirely satisfactory. And I believe I know the reason. Students usually enroll in Indian schools for a period of but three years. Local conditions limit the time devoted to drawing-work to two or three hours per week. The education possessed by these students is of a very elementary nature. Their knowledge of arithmetic is exceedingly limited.

In many of the schools where drawing has been taught the pupils commenced on instrumental drawing. A period of time was then devoted to rather abstruse problems in geometrical drawing and this was followed by abstract random work in orthographic projection. What had been accomplished? The student had just time to get a smattering of these branches when his term was up and he left school. What he did learn did not increase the student's practical usefulness. As a bread-winner it did not give him additional equipment. The drawing, for instance, was not applied to his trade and consequently had no real significance to him.

I do not wish to intimate that a draftsman need not be familiar with this foundation work, but I must frankly say that it is not our intention to train draftsmen. As with the so-called professions this should be left to individual,

initiative, and private support. Our end is accomplished so far as this subject is concerned when the student can make a simple working-drawing in pencil, can block out roughly any work which he wishes done, and can thoroly understand an ordinary plan when placed in his hands to execute in the shop. The Indian boy's education has not been slighted if he is unable to paint a beautiful picture or make an elaborate architectural sketch rendered in ink and color. Simple colorwork can be taught, and is taught, but the best place for instruction in this is in the classroom.

We have made some progress toward the solution of this problem at Haskell. The drawing-work is divided into sections composed of students from the various trades departments. Each section devotes two periods each week to the work. The carpenters form one section and the other sections are made up of blacksmiths, masons, wheelwrights, painters, engineers, and machinists. The work given each class varies somewhat with the trade the pupils are learning.

In the beginning each section is called together in the drawing-room and class recitations are given. This work comprises an explanation and study of the rule and its use, the difference between a picture and a mechanical drawing, the blocking-out of a wooden block with square corners, then of rectangular and other shapes. The students are gradually led to understand the plan, elevation, and sections, and learn to label and dimension working-drawings. All this work, mind you, is at the blackboard before the eyes of the class and students are called upon to explain what they have done and the work is criticized by the other students. Intense interest is aroused and the students learn to make dimension drawings of simple objects which they have executed in the shop.

The instructor now gathers the pupils around his table and shows them just how to proceed to make a mechanical drawing with instruments by executing one himself. The instruments are brought forward, their correct use shown and the names given. These names are always written on the board and the pupils are required to copy them. This fixes the information more permanently in their minds. The boys are then sent to their individual tables to begin work. This beginning is the crucial time as habits acquired in the early stages may be permanent obstructions to good work later on. The drawings are made from models, each shop using actual work made by the students. From now on our own experience has proved that rapid progress and substantial improvement result.

This instruction in drawing has practically revolutionized our shopwork. New interest has been manifested by the students. They do not complain of the monotony of the work as they once did, and where formerly anxious to hear the sound of the whistle which ushered in the time of rest they now do extra work during their own time. It has also been the means of systematizing and unifying the course of work.

As I said in opening this paper there must be unity and correlation between

the classroom and the shop. Let the literary classes visit the shop with the teacher so that the pupils can see the industries at close range. Let them see the shoeing of a horse, the ironing of a wheel, the processes of furniture-making, stone-cutting, and brick-laying. I believe the day is coming when the workshop will be assigned a place wall to wall with the schoolroom, and rather than detract from the efficiency of either this partnership will lift them both to render greater service in the common cause of educating the children of men.

RELATION OF PRIMITIVE HANDICRAFT TO PRESENT-DAY EDUCATIONAL PROBLEMS

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Two years ago at the meeting of this association, Superintendent Maxwell of New York city said that the goal of American education was the ideal of developing the highest individual and social efficiency of each citizen; or, in other words, the making of good citizens of the boys and girls who are intrusted to our care in the public schools. The fundamental basis of good citizenship is a trained intelligence to earn a livelihood, to become a respectable self-supporting member of society.

Let us look at some of the material from which we, as teachers, are to make good "American citizens." First, the normal American-born child—he is very easily disposed of by the curriculum of the public schools; second, the immigrant from Norway, Sweden, Germany, and the other countries of the northern part of Europe, those from southern Europe, the child from across the border-line of Mexico, the Chinese, Japanese, and Koreans, all members of our public schools; third, the sub-normal child, or the child whose mind has not developed in the same ratio as his body; fourth, the physically deficient; fifth, the feeble-minded or mentally deficient; then the deaf; the children who are obliged to leave school early to earn a living; and, last but not least, the children of nature, the Indians.

Let us consider the immigrants for a moment. The people that come from northern Europe are more easily assimilated than those from the southern part. Their customs and modes of living correspond somewhat to ours. They have considerable freedom in their home government, and readily adapt themselves to our civilization.

The people of southern Europe, illiterate, accustomed to tyranny, low in their standard of living, gather themselves together in our large cities and factory towns under conditions inimical alike to morals, to physical well-being, and to their intellectual advancement.

Closely allied to these in customs and habits are the Mexicans, especially the Cholos. These are our special problem in southern California.

The homes of all of these people are simply places of shelter and, sometimes, not even that. From these homes come the children to the public schools. Fortunately for them, the larger number enter the kindergarten. In some

cities receiving classes are organized. From these, when the children have a vocabulary of a very few words, they are promoted to the kindergarten.

The kindergarten and the school is a strange unknown world to them. The children have no language with which to make their needs and wishes known; their only thoughts are to execute their natural impulses; in fact, they are little savages devoid of all training.

The children's interests are still especially concerned with the use of their muscles and sensory organs. It is thru the training of the motor activities of the hand that the mental capabilities of these children may be increased. Here handicraft plays an important part in the development of their mental activities. The mental capabilities of the children must be considered. The teacher must be trained to understand the home life and environment, the habits of thought, and the prevailing methods employed in that particular locality. What is more pertinent to the foundation of good citizenship than the study of home life thru handicraft and what appeals more to the children than this never-worn-out subject? Thru these means may be taught the first steps in the respect for the rights of others, the basis of all good government.

For these little people handicraft may be in the form of paper-folded models for a dollhouse, cutting and folding of the animal life that surrounds the home, the tearing of paper to represent pictures and animals. Patriotism may be taught thru the cutting and coloring of our flag. For the industrial side, a visit to the regular manual-training room, a carpenter's shop, or any industrial place in the locality in which they live will result in paper-folding to represent tools. The child, with encouragement, will illustrate the industries in his home life and thus forge another link in the chain which should bind the home to the school. Thru the making of these articles, the child begins the building of his vocabulary. Together with the gifts and games, the result will be a stock of ideas and acts which later he will combine in new ways. These little immigrants that entered the kindergarten are now prepared, to a certain extent, to take up the regular work of the grades.

But what of the immigrant child, who enters school for the first time in the United States, too old for the grade, perhaps with no previous schooling, or, at the most, a very meager one, with no knowledge of law and order, and with no language in which to express himself. He is beyond the kindergarten age and must enter the first grade. In the first two grades we have a large number of this class. They are not settled in any place; they may be in this school today and another tomorrow.

Strange to say, these are as interested in the home life in the form of a playhouse as the younger ones. Yet these children require different materials and more complicated exercises than others of the class. The problem becomes, how to carry on the usual work of the grade and provide a suitable supplementary course for them. Some form of handicraft may supply this deficiency. The playhouse should be the center of interest. Additional enthusiasm may be aroused by the introduction of a city, or town, or even a

country home. Thus the child may be still more imbued with the ideals of good citizenship.

With these as with the others, we must notice his experiences and environments; what materials has he with which to work, what are the methods used in the home and what is the work of the parents. We still have the problem of unity between the home and school to keep in mind.

If the immigrant is in the region of clay, he may build a house of clay, molding the bricks in forms. Wooden boxes may be used if nothing else is available. In all cities, pasteboard boxes are common. Models of furniture may be constructed, for instance, from pasteboard, the patterns being given to the children and the model sewed or pasted according to the mental capabilities and motor activities of the children. Weaving of rugs, bags, blankets, dolls' sweaters and hammocks may be done on looms, these being made in the regular manual-training room, if possible. Very good results are obtained on cardboard looms. The standards for the hammocks should be constructed in the same way. Models such as receptacles for ashes, garbage, paper, and cans may illustrate the local laws. Draperies, table-covers, rugs, carpets, and wall paper may be printed from block designs carved by the older pupils. Stencil patterns is another form of decoration. Framing of the Perry or other standard pictures, selecting suitable ones for the various rooms, may be made a valuable exercise in patriotism as well as an exercise in developing artistic taste and culture. Artistic forms and construction should be given a prominent place in the work. Hallowe'en, Christmas, Thanksgiving, and St. Valentine's Day will be occasions for special lessons. This work should be correlated with reading, spelling, drawing, and color-work.

Thruout the next two years, or the third and fourth grades, we have the same problems, together with the problem of the boys and girls whose minds have not developed in the same ratio as the body. During the two former years we have the same problem but it is not so noticeable and may be settled with that of the immigrant. These children are ordinarily two or three years too old for their grade. They are physically stronger than the rest of the class and require more active exercises. They are the tyrants of the class, the ones whose interest is the most difficult to hold.

At this time handicraft of the right nature is necessary for the growth of the character of the child. At this period of his life he is intensely interested in all manual occupations. Learn to do by doing is his watchword. Thru this interest we can infuse a spirit of loyalty to the home, to the school, and from these to his locality and country. We can inculcate a spirit of responsibility and usefulness, as well as habits of good thinking. The extra physical energy will be worked off and the children will gradually gain poise and self-control.

Tools and materials must be used, for these require the closest attention and this form of mental activity leads up to acts of judgment. The materials used must be of greater resistance. What more suitable material than wood,

material produced by nature and used in combination with tools manufactured by man!

The child's experiences must be enlarged. This may be done thru visits to mills, factories, parks, beaches, chambers of commerce, and commercial centers. In these places he will learn the value of community work, the results of law and order, and the outcome of obedience. His ambitions may be aroused, his ideals of life raised. At this period the child begins to realize the commercial value of things, else why does the boy sell newspapers and black shoes and the girl seek a place in a store or factory. Therefore he must be given something useful to construct, something that has a commercial value to him.

Again environment is an important factor. We must make use of the things around him. As yet his experiences are connected with the home, with play, and with games. The construction of dolls' furniture may be made a problem in making types of furniture in miniature. This includes a study of constructive designs and artistic effects, a training of the child in culture and taste. Again the framing of some of the pictures of great men, together with those of historical and literary value may be made interesting features. What pride the boy takes in framing the picture that he has studied in the classroom! With what pride does he point to the picture hung on the wall of his room as he tells his father and mother the story of it and how he made the frame!

If anyone doubts the value of handicraft in connection with games and play he ought to visit our kite contest held in late spring. The children gave more thought to the pros and cons of kite-flying than to any subject in their school curriculum. They learned more of poise, balance, power of the air, etc., than they would have learned in the graderoom in ten times the number of classroom lessons. All forms of handicraft require organized thinking. Organized thinking comes when the individual sets himself a definite task to do and then finds ways and means to do it. Too fine adjustment of motor activities must be guarded against. Thought value must be paramount to technique. Thought should always precede technique, for as soon as the thought value is gone, the work becomes purely mechanical. Thoroness and honesty in construction must be taught. As soon as the child sees the necessity, technique should be more carefully taught but should not be the end and aim of handicraft or of manual arts.

The discipline of these boys and girls in the workroom is still a mooted question. The kind of discipline that may be called good is well established in ordinary subjects but the most desirable kind is by no means established in the handicrafts and manual arts. Happiness is the key-note of all discipline. Let me quote the *New View of Discipline*—the name of the author I have forgotten:

> A discipline that makes happiness first, that knows no repression but rather a guidance of energy from the bad into channels of helpfulness and good. Children are not bad. They only do bad things sometimes. Build up and strengthen the wrong-doer himself. Wrong-doing is the result of ignorance or disease and corrections may only be educative or curative, seeing the wrong only that it may emphasize the right.

How to accomplish this depends upon the personality and training of the teacher.

In dealing with the immigrants and the sub-normal children, the teacher must realize that she is an active factor in the development of the child; must realize that she is a friend to the child and must work with him and not over him. In a certain city the children, among themselves, were in the habit of speaking of their teachers as "biddies." The manual arts teacher approached a group of boys just in time to overhear them speak of "Biddie Brown," referring to one of the teachers in the building. The teacher said, "Now I know how you talk about me behind my back." One of the boys looked up and said, very innocently, "You are not a biddie, are you?" Evidently the boys regarded her more as a friend than a teacher.

How to educate the Chinese, the Japanese, and the Koreans is still a problem to be very thoroly considered. Should we have separate schools or should they be allowed to enter school along with the other children?

If they are sent to school at the proper age they are not a menace to the other children. The trouble comes only when they are much older than the average child of the grade, and require attention of the teacher to the exclusion of the other children. Their education for generations has been memorizing and imitating. They are very slow to speak English.

Thru handicraft and the manual arts they may be reached, for their inherent love for the work makes them apt pupils. In their desire for information they will try to speak English and thus increase their use of the language.

Let us consider those that are physically deficient. In cases of children having certain diseases of the eye, handicraft has no part; in dealing with other cases handicraft is beneficial, especially in nervousness and pseudo-nervousness. The teacher, by careful watching, may readily detect nervous defects. Certain kinds of handicraft will cause the nervous child to forget himself and thus gain control of his nerves thru habit. The excess of nervous energy in children of the motor type may be worked off in the exercises and freedom necessary in handicraft. The child with defective hearing will often gain confidence in himself when he finds one thing he can do as easily as the others can.

Let me digress here and pay a tribute to our "school nurses," and the work they are doing. Bathing facilities have been introduced into the schools in many localities; the cleanliness resulting therefrom coupled with the beneficial effects of the nurses' attentions and remedies have made many an incorrigible child into a normal one.

How many children leave school to help earn a living, leave for a part of the school year, work during vacations, or work after school hours in factories and stores. Most of these will, eventually, earn a livelihood by means of the hands. What shall we do to educate these to make them self-supporting citizens? Shall we teach them to think thru the use of their hands, think in terms of material and labor? Shall we acquaint them with the industries as

far as their mental capacity will allow, or shall we teach them the regular branches with only a general reference to their work after leaving school. If one considers the number of children, especially of the foreign element, that leave before they reach the grammar grades, before they get enough of the rudiments to help them in life, then one sees that some provision must be made for this class. As much as is possible handicraft and manual arts, together with a knowledge of the industries of the locality in which they live, should be given them.

In Los Angeles we are fortunate in having the ungraded room in some districts for a certain class; but not enough of them yet. Also those who are twelve and over are allowed the opportunity of the manual-training room. I think we are on the right track and running in the right direction.

The feeble-minded are well taken care of in schools established for them in many places. Manual arts, handicraft, and domestic science occupy the greater part of the curriculum. We still have some left with us in the public schools. Shall we turn these adrift or make some special provision for them along the same lines as are used in the feeble-minded schools.

The deaf are cared for in special schools and in our public schools as well. Handicraft and manual arts take a prominent place in their training. Thru these their vocabulary and ideas are increased. They are made happy, contented, and self-supporting.

The Indians are being well cared for at the present time. As I look back to the school I saw on the Hoopa Reservation some years ago, and compare it with the Sherman Institute, I think that the Indian problem is very well settled.

All honor to the men and women who have devoted themselves to this problem.

DEPARTMENT OF ART EDUCATION

SECRETARY'S MINUTES

TUESDAY AFTERNOON, JULY 9, 1907

A joint session was held with the departments of Elementary Education and Manual Training. (For minutes see Department of Manual Training).

WEDNESDAY MORNING, JULY 10

The department of Art Education met in the First Methodist Church. Joseph Scott president of the Board of Education, Los Angeles, welcomed the members of the department to Los Angeles.

Miss Mary S. Morse, of Los Angeles, was appointed acting secretary.

Eugene C. Colby, supervisor of drawing and manual training, for the state of New York and president of the department, delivered the presidential address on the "Aim of Art Education."

The topic of "The Relation of Art Education to Everyday Life" was presented in papers by Miss Katherine L. Scobey of the University School for Girls, Chicago, Ill., who spoke from the culture side; and by Arthur H. Chamberlain, dean and professor of education, Throop Polytechnic Institute, Pasadena, Cal., who spoke from the utilitarian side.

The president appointed the following committees:

ON NOMINATIONS

Katherine Ball, San Francisco, Cal. Frances Sterrett, Los Angeles, Cal.
Katherine L. Scobey, Chicago, Ill.

ON RESOLUTIONS

A. B. Clark, Stanford University. Mary A. Woodmansee, Dayton, O.
Emily O. Lamb, San Diego, Cal.

The following took part in the discussion of the papers of the meeting: Katherine Ball, San Francisco, Cal.; T. A. Mott, superintendent of schools, Richmond, Ind.; Mrs. Edith Ingersoll, Evanston, Ill.; A. B. Clark, Stanford University, Cal.; Harriet N. Morris, San Diego, Cal.; T. L. Heaton, deputy superintendent of schools, San Francisco, Cal.

FRIDAY MORNING, JULY 12

The department met in Berean Hall, Auditorium Building.

A. B. Clark, Leland Stanford Jr. University, read a paper on "University Entrance Credits in Drawing."

"Object Drawing" was considered in a paper by Edna B. Lowd, teacher of drawing, Los Angeles, Cal.

The subject of the "Third International Congress on Art Education" to be held in London in August 1908, was presented by President Colby and discussed by several members.

The Committee on Resolutions reported as follows:

1. *Resolved*, That school boards be urged to require the same preparation in time and quality from art teachers that is required of teachers in other subjects.
2. *Resolved*, That an important question for consideration next year be the correlation of the subjects of art and industrial education.
3. *Resolved*, That the art teachers of this department indorse the plan of the exhibit of American art at the International Congress of Art in London in 1908, and that we recommend individual financial support of the same.

4. *Resolved*, That a committee of three, with power to increase their number, be appointed by the chairman of this meeting to correspond with educators concerned and to recommend reasonable university entrance examinations in art, the report to be made to this department in 1909; and further that an appropriation of thirty dollars for the correspondence expenses of such committee be requested from the General Association.

A. B. Clark,
Mary A. Woodmansee,
Emily Othout Lamb,
Committee on Resolutions.

At the suggestion of Superintendent W. H. Elson, of Cleveland, O., the following addition was made to resolution 4: "The committee is to co-operate with other committees doing similar work, such as that of the North Central Association of Colleges and Secondary Schools.

The resolutions, thus amended, were adopted and the following committee appointed:

A. B. Clark, Leland Stanford Jr. University, California.
Henry T. Bailey, North Scituate, Mass.
Miss Florence E. Ellis, Supervisor of drawing, Cleveland, Ohio.

The nominating committee reported:

For *President*—George W. Eggers, Chicago, Ill.
For *Vice-President*—Miss Mary A. Woodmansee, Dayton, Ohio.
For *Secretary*—Miss Florence E. Ellis, Cleveland, Ohio.

These nominees were elected and the meeting then adjourned.

Mary S. Morse,
Acting Secretary.

PAPERS AND DISCUSSIONS

THE AIMS OF ART EDUCATION IN THE PUBLIC SCHOOLS

E. C. COLBY, STATE DIRECTOR OF DRAWING AND MANUAL TRAINING, NEW YORK

The evolution of the art feeling in this country has been nourished and advanced by the rise and development of industrial activities. During the war for independence, art was latent among the people, and the dormant germs of art only budded when the new republic looked to its own genius for the production of those things necessary for its advancement. And so the mills and the factories, the foundries and machine shops come into being, calling for the creative faculties of the mind expressed in graphic and plastic art. The builder needed his architectural drawings, the machinist his plans, the household-decorator his designs, and training was necessary to produce them. In the fine arts, the portrait- and landscape-painters, striving for expression, felt the need of training, and were obliged to seek it abroad. There was no real art education among our people in those days of primitive energies. It had not entered into the minds of our educators that this training was so important in the fostering of our industries, and was still more important in developing the conscience and character of our citizens.

It has been truly said that

> Education must prepare the individual for life in society. It must teach him to imagine, that is, to form new combinations from the material supplied by observation and reflection, for imagination is responsible for all progress in art or in science, in industrial or commercial enterprise. It must give him a knowledge of what has been done and thought in the past.

The child must be taught to see that there is more in life than the mere struggle for existence. He must be given ideals by which he can judge, by which he can guide his own actions, and in which he can find rest from the cares and temptations of everyday life.

Until recent years drawing in our public schools was a specialty, unrelated to the other subjects in the curriculum. It was introduced into the schools of New England as a result of an industrial need without any thought of developing the mental powers of the child. In the course of time, however, the necessity for unification in the school curriculum became apparent to educational leaders, and efforts were made to place drawing on an educational rather than an industrial basis and to place it in the same rank with other studies.

But the reform was encompassed by many difficulties. It was necessary to develop the aesthetic value of the subject, to bring the child to the appreciation of the beautiful in works of art, nature, and his own surroundings. In a word it was necessary to develop all of the educational possibilities of art instruction and to so correlate it with the other subjects taught as to prove its value in placing the child in a proper relation with his environment, develop his mental powers, and form a solid basis for special work in the extensive fields of pure and applied art. Toward this end we are working at present, and much has been accomplished notwithstanding many obstacles encountered. When the subject was introduced from a foreign country by those who did not understand our conditions and needs, it was looked upon with suspicion by the people, ridiculed by artists, and by many regarded as a useless fad. But these obstacles to the development of art education have, to a large degree, been overcome. Educators and artists have watched the steady progress of new methods in art training with approval, and in response to public sentiment on the subject many well-equipped art schools for the training of teachers have been established. Almost all of our larger cities now have directors of drawing and manual training, and teachers are expected to be prepared to teach these subjects according to the latest and most advanced methods.

It is now more generally understood by the people that the ideal art instruction in the schools serves to develop the latent talent for drawing, designing, constructing, illustrating, painting, and also, what is more important, to develop mental power, securing accuracy of observation and power of comparison, the ability to plan new combinations of objects and of thoughts, and the attainment of individuality of thought and expression. It brings the child new ideals and a new sense of the beautiful in nature and in art.

Carlton Noyes says,

In its essence and widest compass art is the making of a new thing in response to a sense of need. The very need itself creates, working through man as its agent. This truth is illustrated vividly by the miracles of modern invention. The hand of man unaided was not able to cope with his expanding opportunities; the giant steam and the magician electricity came at his call to work their wonders. The plow and the scythe of the New England colonist on his little farm were metamorphosed into the colossal steam driven shapes, in which machinery seems transmitted into intelligence, as he moved to the conquest of the acres of the great West. First the need was felt, the contrivance was created

in response. A man of business sees before him in imagination the end to be reached, and applying his ideal to practical conditions, he makes every detail converge to the result desired. All rebellious circumstances, all forces that pull the other way, he bends to his compelling will and by the shaping power of his genius he accomplishes his aim. His business is his medium of self-expression, his success is the realization of his ideal. A painter does no more than this, though he works with a different material. The landscape which is realized ultimately upon his canvas is the landscape seen in his imagination. He draws his colors and forms from nature around; but he selects his details, adapting them to his end. All accidents and incidents are purged away. Out of the apparent confusion of life arises the evident order of art. And in the completed work the artist's *idea* stands forth salient and victorious. . . . . That impulse to creation which all men feel, the impulse which makes the artist, is especially active in a child; his games are his art. With a child material is not an end but a means. Things are for him but the skeleton of life, to be clothed upon by the flesh and blood reality of his own fashioning. His feelings are in excess of his knowledge. He has a faculty of perception other than the intellectual. It is imagination. The child is the first artist. Out of the material around him he creates a world of his own. The prototypes of the forms which he devises exist in life, but it is the thing which he himself makes that interests him, not its original in nature. His play is his expression. He creates; and he is able to merge himself in the thing created. In his play he loses all consciousness of self. He and the toy become one, caught up in the larger unity of the game. According as he identifies himself with the thing outside of him, the child is the first appreciator.

If the child is the first artist, how needful it is for us to make his acquaintance in the early stages of his education. In the past decades educators have closed their eyes to the broad fields of budding geniuses, have failed to realize that among the teeming masses there are multitudes of children in whom are the seeds of creative ability which only need the fostering care of experienced teachers to bear the most precious fruitage.

In view of the foregoing, the aim of art instruction in the public schools should be to lead the pupils to observe, to think, and to study for themselves; to train the eye to see form, color, and tone values correctly; to develop the imaginative and creative faculties; to cultivate a taste for and appreciation of good art; and to give the hand skill that the children may express their ideas on paper and in material. In a word that they may be able to create, to draw, to construct, and to appreciate the useful and the beautiful.

The need of drawing as a foundation stone in education should be apparent to every thinking individual. There is no other study in the school curriculum that has a more important bearing on a pupil's future career than drawing. There is not an important industry in our great country that does not depend largely upon the creative faculties of the hands and minds of art-trained operatives. The foundries and machine shops all over the land depend for their prosperity upon the creative powers of the men at the draughting boards. Without design there could be no beauty nor usefulness expressed in metals. In the manufacture of textile fabrics the same rule applies to a wider degree, for without design there can be no beauty. Turn in whichever direction one may in the industrial world and it will be seen that the draughtsman is the soul of all enterprise; without him the factories would cease to hum the merry

note of prosperity. And the importance of the man who can draw and create thru his imagination increases as the years roll on and the industries of our wonderful land become the more and more colossal in their scope.

All the great undertakings of our time are carried on by inventive skill. Our modern system of industry depends entirely upon the skilled training of a vast and ever-increasing army of workmen.

The effect of industrial training as pursued in the school curriculum is apparent everywhere in the United States. It is thru this influence having its root in the drawing and manual training in our schools, that commercial interests, especially the cotton, textile fabric, and mechanical engineering industries are increasing with such rapid strides.

Honorable Carroll D. Wright says very truly,

> Invention and the development of the industrial arts have raised those coming under their influence to a higher intellectual level, to a more comprehensive understanding of all that makes for the best culture. Every new machine marks some progress in useful art, and it usually embodies something more than mere utility. There is a beauty in the movement of mechanical powers that has a reflex action on the beholder. The highest creative art enters into all these constructions—not an art, it may be, that paints a great picture or decorates a cathedral, but an art that bespeaks no less clearly the divine attributes of the mind that conceived it.

Art instruction in the schools has a practical aim. It is to develop talent, mental power, character, ideals, and standards. More than this, the mission of art instruction is to exercise a moral power over the homes and lives of the people. As Dr. Münsterberg says it is

> to bring us that rest which is not fatigue from work, or—another desire of the ever dissatisfied mind—the rush of amusement; no, that rest which is complete harmonization of all our energies, complete fulfilment of our real personality.

It is to meet demands of an industrial progress never paralleled in the world's history that art must be elevated in our educational system to a higher plane by its unification with the school curriculum by which the children of our mighty republic may be developed into useful, well-rounded, practical, and intelligent citizens capable of taking a part in solving the problems of our wonderful age.

THE RELATION OF ART EDUCATION TO EVERYDAY LIFE—FROM THE CULTURE SIDE

KATHERINE LOIS SCOBEY, UNIVERSITY SCHOOL FOR GIRLS, CHICAGO

The slogan of the century has been sounded; from the armies of laboring-men and from the armies of professional men alike the cry resounds; from the civil, the social, and the educational classes it echoes with almost equal persistence. The challenge that meets one on every side demands, "Is it practical?" and demands it with an imperiousness that brooks no evasion, and that is satisfied with no other answer than absolute, convincing proof. The social settlements thruout our land are answers to the call for practical help to the poor. The bureaus of charity found in our large cities are responses

to the cry for a practical means of almsgiving. Pedagogical theories are not exempt from the demand to make good, not simply to be good; and religion, too, must today answer the ever-present query, "Is it practical?" for the spirit of man seeks a demonstrative principle to meet the problems of life.

The attempt to make our schoolwork practical is so influencing public opinion that more than ever before are aids to education found in unlooked-for places. In many cities the park boards are following lines of work which cannot but prove efficient help to the schools. In Chicago the system of small parks for crowded districts of the city is proving itself a potent factor for good. We have long clung to some such sentiment as, No man can emerge from the park he has just crossed without some slightest change for the better. Very pretty, no doubt; and if it is not true, it should be, and would be if men had become art-conscious. Granting its truth, we have there a power for good; but may we not utilize that power to a greater extent? are we complying with the economic demand of the age that everything serve to the fulness of its capacity for usefulness? The idea of utilizing latent forces for good, which the park boards have seized upon and made practical, is one which I wish to emphasize when I come to the immediate discussion of my topic.

We say that drawing and music, manual training, and domestic science, as branches of school instruction, have met success, because they have been able to answer in the affirmative the question, "Is it practical?" But just here we need a defining of terms. What do we mean by "practical;" what constitutes a "practical curriculum"? Before we attempt a definition, let us consider the object of education. Francis Parker, after quoting the old maxim, "Put into the school that which you would have in the state," once said:

> In place of the training of subjects as is the case in the Old World, we have the problem of the education of the citizen for sovereignty. The weakness or strength of central governments is found in police or armies; in America it is found in individual character.

Are not public schools, therefore, instituted primarily to insure good citizenship? Is not the object of all education the development of right thinking and right doing? How to obtain these ends is the goal toward which we are all striving, and which, when attained, will solve the problem of education. You will grant, will you not, that any course which makes for the accomplishment of these ends is practical? Any branch of study, therefore, which will promote the development of a stronger, purer manhood and womanhood is essentially practical; and any curriculum which sets in motion character-building agencies is, and must continue to be, practical.

The point for our consideration is this: Does the study of art measure up to the requirements of a practical subject? Is the relation of art education to everyday life a practical relation? for, if not, it is valueless. Orville T. Bright has said:

> Too little of what is aesthetic and ethical has come into the lives of children thru the medium of the public schools. The narrow interpretation of the word "practical" has oftentimes shaped courses of study for the sole purpose of aiding students to "get on'

in the world, or in other words, to make a living. This purpose is laudable if it does not stop short. The training should also make the living worth the getting, or the lives worth the living. Certainly, whatever adds to the loveliness of a character, or enriches the thought content of a mind, or develops a perception of and love for what is beautiful, is "practical" in the highest degree.

The relation of art education to everyday life is a helpful one, because it does add "to the loveliness of a character" and does enrich "the thought content of a mind," in a threefold fashion: first, by the study of biography; second, by the attempt to create objects of art; and third, by the study of masterpieces of art. The study of biography in connection with art is no longer a novelty; good schools thruout the land make the study of the lives of artists an integral part of the art work. That the biographies of great-minded and simple-hearted men and women are potent instruments in character-building is a pedagogical fact so often asserted, and as often demonstrated, that it has become a truism. The attempt to create objects of art will, as Mr. Bright says, promote a "perception of and love for what is beautiful" and may lead to the development of a talent that will add to the treasures of the world's art, altho the object of teaching drawing never has been to make artists. The study of the masterpieces of art is the subtlest, and perhaps the most far-reaching, of the three influences. Mr. F. J. Orr says:

> It is the reflex influence of the best qualities of character represented in art that is to benefit those who study pictures [and he cites Lessing's words concerning Greek sculpture]: these beautiful statues, fashioned from beautiful men, reacted upon their creators; and the state was indebted for its beautiful men to its beautiful statues.

Someone has said that nothing is artistic which is not restful. If rest is an element of art, a study of great masterpieces should give the student some sense of rest, of repose. Is not that in itself a consummation devoutly to be wished? Which one of you does not know some person who is in desperate need of repose of manner, of mind, or of spirit? Loud is the cry for mental repose; and louder the call for spiritual. May it not be that even an outward sense of rest will help pave the way for mental and spiritual repose?

When I was a small girl, the minister of our church prefaced his sermon by a five-minutes' talk to the children. I remember that one Sunday after showing us wooden plinths, triangular, square, hexagonal, and cylindrical, he compared them to people. Some, he said, had so few interests that they might be compared to triangular prisms which present such sharp corners to the world. Other people were sufficiently well developed to be catalogued as square or hexagonal prisms meeting the world less angularly. But the wise man, he concluded, cultivates his mind on all sides; he is the cylinder, presenting no sharp corners to be rubbed off thru the painful but wholesome ministration of the world's knocks. Art education is one essential to the rounding which makes the much-to-be-desired cylinder man. It is not the only one, nor the most important; but it is an essential because it brings out latent forces for good.

Here I should like to say a word about the richness of art work for correla-

tion with other culture-producing studies. The biographies of the painters and sculptors not only furnish available reading-matter, but offer a fertile field from which both oral and written English work may be taken. Copies of the masterpieces may be used, too, in direct connection with drawing and painting, for they furnish concrete examples of perspective, of color, of composition, and of the massing of light and shade. At a recent elementary-school exhibition it was notable that the tints used in the painting, decorating, and designing of the children were unusually soft and well blended. The customary brilliant primary colors jarringly combined were absent. The secret of it lay, so I learned later, in the teacher's pinning on the walls of the schoolrooms, colored reproductions of good pictures whose pleasant harmonies entered the minds of the pupils, and took root.

In the Books of Kings we read:

> And a great and strong wind rent the mountains and brake in pieces the rocks before the Lord; but the Lord was not in the wind; and after the wind an earthquake; and after the earthquake, a fire; but the Lord was not in the fire; and after the fire, a still small voice.

These words are peculiarly appropriate to the appeal of art, whose "still, small voice" is speaking annually in more and more of our schools. Many noble-minded women, believing in the potency of the "still small voice" have avouched the sincerity of their belief by banding themselves into such organizations as the "Public School Art Society," of Chicago, among whose activities we find the management of loan collections to public schools, and the arranging of school talks on art topics. It is an impossible thing to estimate the culture-producing power of such work as this; but the unfeigned interest of the children, their conduct during a lesson on pictures or the lives of the artists are indices that point to the fact that the effect is a good one. In my own room I have seen the so-called "bad boy" of the town sit quiet and attentive during a lesson on Edwin Landseer or Jean François Millet, when every other topic found him restless and uneasy.

The "still small voice" is speaking thru many avenues. The actual drawing, painting, and manual training I have discussed least because they are best known, and because I feel that in addition to the concrete art lessons, the teaching of art, like the teaching of morals, should be ready to grasp every opening for its presentation. The avenue of schoolroom decoration has of late received much attention. Harmonious tints in the calcimine and woodwork are no more expensive than jarring ones; colors suited to a sunny room are not the same that should be chosen for the cool lights of north rooms. The slightest point that makes for artistic arrangement or harmony should be considered. I remember well seeing a normal teacher go into a primary room, arrange the window shades uniformly, and remark, "No wonder Miss E. cannot control her children in a room that looks like this." The natural effect upon children of order and harmonious arrangement is a desire for order and harmonious arrangement in themselves; and the desire is father to an increased

anliness, gentleness of manner, and refinement of speech.

Art instruction produces a certain amount of culture which is carried beyond the school into other departments of life. Williams James says: "Every smallest stroke of virtue or of vice leaves its never-so-little scar." The same is true in lesser degree of beauty and of ugliness. Let the eyes become open to beauty, and the heart will soon follow. So Corot believed when he wished that he might paint the walls of the prisons, because he felt that if he could make the prisoners see the appeal of dawn in the woodland, the mystery of twilight and bright noonday, they could not but feel the loving-kindness of God and obey his laws.

Culture, widening man's experience, gives him broader sympathies, better judgment, more extensive interests, and a larger sphere of pleasure as well as of usefulness. Culture may transfuse an otherwise commonplace existence with a light which makes rough places less rough, and heavy burdens less wearisome. Culture is the result of certain mental processes habitually active. Art education is a handmaid that can minister to the needs of the child by cultivating such habits as may best subserve the uses of culture. To quote Mr. James once more:

> Habit is the enormous fly-wheel of society, its most precious conservative agent. We must make automatic and habitual, as early as possible, as many useful actions as we can.

Art education habituates the child to a recognition, nay, a search for beauty.

How much may be added to the thought content of a mind, to the joy of living, by the habitual search for loveliness! If the latent forces for good resident in art education are thus made use of, the child will become art-conscious, awake to beauty, receptive of its message; and in very fact unable to leave a park or any other manifestation of beauty, without carrying with him some influence for good. You may have heard of the woman living in the slums of New York whose sad life was made one ray the brighter by the perception of color. A settlement worker had called her attention to the beauty and variety of color to be found everywhere if one's thought is but open to it. A few days later the woman came to the settlement with gleaming eyes, saying in her broken English that the day's hard labor had been lightened by the beauty of color always visible from her window, but never before perceived.

To the search for beauty we may add the habit of discrimination. Art education promotes perceptive discrimination; and perceptive discrimination widely cultivated promotes conceptional discrimination, which, of the two, is the more assiduous worker for the growth of culture. One of our noted psychologists says that:

> Any personal or practical interest in the results to be obtained by distinguishing makes one's wits amazingly sharp to detect differences. And long training and practice in distinguishing has the same effect as personal interest.

Such a statement is fuel to endeavor, especially to that of the manual-training teacher.

We may include the cultivation of memory in the good work which art education is doing. It is well known, psychologically, that those facts which

are most closely interwoven with other facts lodge most securely in the grooves of memory, while isolated facts glide quickly over the smooth surfaces of mortal mind and are lost. To tell a pupil that Michael Angelo carved the statue David, will not fix the fact in mind; but show him a picture of the statue, tell him how it was carved from a supposedly useless block of marble; let him know that it was the same David who used small pebbles with such telling effect; and you can be reasonably certain that the point has become a fixed quantity.

The relation of art education to everyday life is a very vital one, for art education stands for the establishment of ideals of beauty. The child who is naturally of aesthetic tastes should have his ideals of beauty broadened. The child who seems devoid of aesthetic tastes surely needs the seeds of beauty sown in his mind that his life may become more worth the living because of beauty looked for and perceived.

We know that the truest beauty, and the permanent and the real, is of the spirit; and if art education in the schools can in even slight measure produce that beauty in everyday life, it will be rendering an inestimable service. Reform is ever from within. A disorderly child never becomes really orderly until he has a love of order in his heart. He may be compelled to keep his room in order, for instance, but tho he does so, he is not, and never can be, an orderly boy thru compulsion. We can, however, do something to forward the birth of right desire.

As with reform so with beauty. For example, to be able to recognize a Rembrandt by its chiaroscuro is alone of no cultural potency, were it not that the ability to recognize the works of a master is perhaps the thin edge of a wedge which will open up a love of good pictures. The love may be followed first by some slight understanding that the artist had the beauty within before he externalized it on canvas; second, by a realization of the manifold principle that beauty of thought creates beauty; or it may beget a desire to create beautiful things, not necessarily pictures, nor poems, nor statues, but things of beauty, nevertheless; and given a right desire, what cannot be accomplished thru education?

Surely beauty is practical, if it leads to the beauty of right thinking and high living. May we not remold Tennyson's words: "Great is song used to great ends," into, Great is art used to great ends? Let us use it for the establishment of high ideals of beauty, for, as James L. Hughes says:

> Ideals transform individuals and ultimately transform national life. Ideals become vital in our lives by consciously choosing them. The child who is trained to choose consciouly the most beautiful things in his environment is being trained in the most effective way to consciously adopt true ideals in manhood. Art has a high moral influence because it tends to lift the race soul above materialism. Unless the material life can be spiritualized, man's tendency is towards the jungle. The spiritual in literature and music and art has lifted the race slowly towards the divine. This is the only true education.

Would that the time allowed me to discuss my topic from the national standpoint, because the relation of art education to culture is to become here in the United States more and more intimate as the years go on, for the horizon

of American art already glows with the splendid promise of the day. One of our art critics has said,

> When the vast mind of America, expressed already in invention, speaks through art, will not the whole world join in its applause? And may not the magnificent lead which America has taken in mechanics be regarded as a prophecy of the time to come in art?

To be sure Paris is considered the best place to study art now, but is was to Munich that our older men went, and before that time Rome was art's fountain head. In the ceaseless shifting may not some American city become the next art center? Not that it will come by chance; it must be the result of growth; and art education in our schools can do much to promote the growth which is to mean greater culture for our land. Even some foreigners look to America as the future art center. Edmon Aman-Jean, the French artist, says:

> My conviction is that like Venice the United States will have one day, the most magnificent school of painting in the world. The Old World is effete; the United States a splendid spectacle of activity. Venice also began by industry and commerce, had sailors before painters, and was obliged to acquire opulence and dominion before she could cry a school of art.

The natural resources of our country have been marvelously developed in the interests of industry and commerce, but the growth of art is yet in its incipiency. We have as yet no national art in America, but that we shall have, I doubt not. Public opinion must first be changed, however, as must the attitude of our government. Let us hope that the children who are having the culture side trained by art education will grow up into a constituency which will demand legislators who have ceased to look upon art as a luxury but rather as a necessity to the righteous growth of our nation; legislators who recognize and demonstrate the patriotism of art as well as of courage; legislators who perceive that a nation's ideals find permanent abode in her arts; legislators who will foster the arts even as they are fostered, nourished, and safeguarded in France and Germany, in Spain and Russia. Art education so relates itself to everyday life that the youth of our land when grown to man's estate can and will think of something besides trade and traffic, will have some perception of the "strange, sweet beauty which came down to Raphael and the holy Angelica," and having that perception they will so work that one day we shall have our own Raphaels and Bellinis, our own Angelos and Tintorettos. Let us rejoice that we are facing the sunrise and not the sunset of our culture!

THE RELATION OF ART EDUCATION TO EVERYDAY LIFE—FROM THE UTILITARIAN SIDE

ARTHUR HENRY CHAMBERLAIN, THROOP POLYTECHNIC INSTITUTE, PASADENA, CAL.

One is reminded at the outset of the definition of culture as given by Bosenquet. He says:

> Culture is the habit of mind instinct with purpose, conscious of the continuity and connection of human events, able and industrious, capable of discerning the great from the trivial.

Applying this definition of culture to the subject of art education, I find it difficult indeed to dissociate in thought the utilitarian view from the culture standpoint. "Culture," in the language of Bosenquet, "is the habit of mind instinct with purpose," and purpose points to utility; it is "able and industrious," and this again implies utility, or use; it is "capable of discerning the great from the trivial," a consummation of the most truly utilitarian value. In a word, the relation that art education bears to everyday life from the culture side, that it bears also from the utilitarian side.

But what do we mean by the utilitarian in art? When we endeavor to analyze our conception of the term utility we have a task far from simple. We are prone to consider in an out-of-hand manner that the utilities are those things, objects, or attributes that can be put to immediate material use. Anything that may be used to our own, or to the advantage of others, anything that contributes to our physical needs would at once be classed as a utility. The utilitarian view is, to the common mind, opposed to the educational or the aesthetic side; it is the bread-and-butter conception. Utilitarianism in the popular sense refers to trade; it bespeaks the commercial spirit; it has to do with coal and iron, shovel and pick, cotton and coffee, steam and electricity.

If this view was, in any narrow sense, the true one, such a discussion as this now before us were impossible. If culture and ability were two distinctly different phases of our problem, art would have no relation to either. All legitimate education is both cultural and utilitarian in character, for what is truly the latter must, perforce, be the former, and the everyday life of the individual is influenced more than he can say by true art, whenever and however it may appear. We mean by art education the appreciation and development of the art spirit in the schools and out of them.

How great an effect art education has upon the utilitarian side perhaps cannot be told. As a tool we think of language as the all-important element in the progress of the race. President Butler says in his introduction to Chubbs's *The Teaching of English:*

> From one point of view the significance of the development of modern education can best be estimated by the progress of the mother-tongue toward the central place in formal instruction. When the study of the mother-tongue and its literature is made the core of the curriculum, education is something quite different from that training in which a foreign, perhaps an ancient, tongue holds the chief place. No people is intellectually independent until it has a language and literature all its own, worthy to be an educational instrument and an educational end.

Just as the language of a people, both spoken and written, furnishes the key to its future development, and, as President Butler says, should hold the central place in formal instruction, so in a lesser degree and perhaps in a more fundamental sense, art performs the same function. It cannot be denied that a people is intellectually independent only when it has an art, that is, an appreciation of art, an appreciation so keen that the moral, intellectual, and commercial life is advantaged thereby.

Art that is capable of making its appeal through utility will be appreciated;

whenever it is accepted as having value from the utilitarian side, it will make its appeal to culture. True appreciation is not simply a matter of development, of evolution, of education, altho the more complete the knowledge the more perfect the ideal. The real in art may be appreciated at once. This may perhaps be stating in another way, that only the real is art; hence true art can always be appreciated.

Our knowledge is a torch of smoky pine
That lights the path one little step ahead
Across a void of mystery and dread.
Teach then the inward light of faith to shine,
Whereby alone the mortal heart is led
Unto the thinking of the thought divine.

Permit me therefore to take the ground that true art cannot exist aside and apart from the useful. This implies that all useful things are beautiful altho there are degrees both of utility and of beauty. But of two things, otherwise equally good, the one most beautiful will serve its purpose best. The crude clay water jug of the primitive savage, fashioned around a basket of woven rushes, was indeed an article of use, and not without artistic merit. The delicately fashioned vase of the Greek, designed for exactly the same purpose and with a capacity equal to that of the clay jug, but combining symmetry and perfect lines, was by far the best piece of work from a utilitarian point of view. The water jug is forgotten by all save the archaeologist, but the vase form is used today as it has been used through all the centuries past. Because it pleases the eye, its market value is greater than that of the other, it will be used as a model while the other will not; it will have an effect upon the life of the individual that the other cannot have—an effect beneficial from both mental and material standpoints.

There is one glory of the sun, and a glory of the moon, and another of the stars; there is likewise an art of strength, an art of simplicity, an art of line, form, and color, and all combine in use, which is the art itself.

Beauty in form, in color, in musical note, reached a high standard of perfection in the life of the old Greek and Egyptian; in fact, with all of the boasted superiority of our present-day civilization we have never excelled the Greek in his power to depict line and form or the Egyptian in his ability to produce abstract color. Music, painting, and sculpture, have, however, until a recent day, been conceded to comprehend the fine arts. When architecture became an art, then, in a measure, was the utilitarian view considered. It remained for the applied arts, or the so-called industrial arts, to clearly point the way of the relation of art to utility.

We have had pictured to us the master Angelo as he toiled day after day and month by month until the Sistine Chapel was complete, a marvel to all the world and a monument to the creative powers of the man; we have stood silent before the incomparable Madonna of Raphael, being drawn again and again to view, with reverence and wonder, this picture; the chisel of Phidias

has left its impress upon the lives of a multitude; the majestic lines of Schiller and Goethe, of Emerson and Shakspere, the music of Wagner and Beethoven, and the sentences of Chatham and Webster, are as fresh and inspiring today as they were in the time of our fathers. And in the effects upon our lives of this contact and this experience, the least is by no means utilitarian in character.

Since, however, art has begun to assume a broader aspect than that symbolized by the brush and chisel only, art education in the schools has developed and widened. William Morris says,

> Men fight to lose the battle, and the thing that they fought for comes about in spite of their defeat, and when it comes turns out to be not what they meant, and other men have to fight for what they meant under another name.

From the time of William Morris and John Ruskin, the beauty of utility has been more and more emphasized, and today the term art may be applied to work in silver or gold, iron or copper, to wood, glass, leather, or paper. A book or mantelpiece, a city street or a shop window may as clearly embody the art spirit as a painting or a statue. Looked at from this view-point it is easy to see how art education may be a part of school life and how it may have a distinctly utilitarian trend.

Art may be appreciated from the negative as well as from the positive side. What has not been attempted frequently counts far more than what has been done. I mean that much so-called art is overdone and its everyday effect is lost. Here again an analogy exists between language and art. Just as in the former we may find our expression heavy or extravagant and our sentences carrying us beyond the point at which we should give pause, so in art we are aware of this tendency toward the extreme.

An illustration is in point: In many of the schools of Germany where articles of furniture or articles in wood are made, it is the custom to overlay a given piece of construction with elaborate chip carving. This destroys the character of the wood, the effect of the grain, covers from sight any imperfections in workmanship, and consumes much valuable time. This same method is seen to exist in certain types of German commercial life, where the chairs, table tops, trays, picture frames, newell posts are all carved. Some of these articles are less useful after being decorated than they would otherwise be. The moral effect upon the individual is bad, and utility is disregarded. In art, simplicity goes hand in hand with utility.

It may safely be said, therefore, that use is a determining factor in art, and that construction and decoration are the two fundamentals.

I have spoken of the moral effect as being different and apart from the utilitarian. But this is impossible. Let me illustrate. I once taught a group of boys in Henry Street. Those of you who live in New York City and have undertaken to learn at first hand how the other half live, need not be told the location of Henry Street. The filth and poverty and disappointment of the East Side, are resident in this locality; the pathetic and downcast mingle

here with the gay and the boisterous; confidence and suspicion watch from opposite street corners. But with scant means, meager homes, and an unhappy environment there is a growing appreciation of the beautiful and an increased understanding of how to construct useful and beautiful things. I learned one of the silent causes of this appreciation when, on climbing to the attic of a Henry Street building, I entered a small room occupied by two of the young men who were working with the boys of the district. On the walls were prints of the masters, simply framed; book shelves cheaply and serviceably made, and some home-bound magazines and books; pieces of furniture made by the young men, and, scattered here and there, small articles of use, so simply and honestly constructed as to be within the ability and reach of all. This delightful place the boys used to visit and from it radiated such an atmosphere of real art, that they carried with them a feeling for the useful and beautiful and the moral as well.

A decidedly wrong impression is prevalent with many educated and well-informed people—an impression that a knowledge of art, unless one is to become an artist, possesses a sentimental value only. To most people art education implies lessons in drawing, perspective, light and shade, life, cast, and perhaps a touch of water color and a bit of clay. Indeed, most of our school people take this view and what is still more to be deplored, the major portion of the art teachers themselves, teachers of drawing, so called, subscribe to this doctrine. In point of fact only a small portion of the legitimate art education of the schools should be classed as drawing or graphic expression. Applied art, constructive design in any material, metal craft, jewelry, enameling, pottery, bookbinding, leather, textiles, may properly be classed as art education, and the student who has a real understanding and appreciation of perspective, pure and applied design, and the principles of construction will find he can use this knowledge to advantage in a thousand ways.

There is scarcely a profession, trade, or occupation in life where the value of the rapid sketch is not daily seen; the binding of pamphlets, magazines, and books proves a great convenience to many; a knowledge of weaving and textile work, if learned in their elements, will be of great value in later life; decorated and tooled leather may be put to a variety of uses. In wood, many articles of furniture can be made, and there is practically no limit to the extent that metal-work may be carried—lampstands and shades, screens, bowls, vases, buckles, pins, and the like, while wood and metal or wood and leather, in combinations, are adapted to many useful ends. And what is even more significant is the development which is the outgrowth of this experience—a development finding expression in the everyday life of the individual.

It will be understood that in speaking in this connection of the applied or industrial arts and of the crafts, the writer has not in mind the flimsy, pieced-together work of the popular handicraft club or the society organization, but rather the substantial serious undertakings, considered from the standpoint of good design and true construction. Broadly speaking, that which appeals to

the mass and continues to appeal to it, possesses the elements of utility. The superficial and shallow will endure for a day; that which is fine and true is lasting. In Germany the rich and the poor, the young and the old, the workman, student, and merchant, sit side by side at a Wagnerian production; all are interested, uplifted, instructed. No man has a corner on the appreciation of such music. It appeals to the average man, as does real literature and true art.

The average man is the man of the mill,
The man of the valley, or man of the hill,
The man at the throttle, the man at the plow,
The man with the sweat of his toil on his brow;
Who brings into being the dreams of the few,
Who works for himself, and for me and for you.
There is not a purpose, a project, or plan,
But rests on the strength of the average man.

The man who, perchance, thinks he labors alone,
The man who stands between hovel and throne,
The man who gives freely his brain and his brawn,
Is the man that the world has been builded upon.
The clang of the hammer, the sweep of the saw,
The flash of the forge—they have strengthened the law,
They have rebuilt the realms that the wars overran,
They have shown us the worth of the average man.

It is only that education which has a relation to life, day by day, that can be considered true education. The art that does not appeal to everyday existence is not the true art, altho that which at first glance seems useless and theoretical may prove to be of the greatest material value. "We live on the electricity in the air much more than we do on the food we put into our mouths," is another way of expressing the truth that the unseen forces are sometimes of the greatest utilitarian value.

Our daily life is the life that counts and everyday art is the only variety that is effective. Everyday art for the everyday man should be the motto of art education, and little by little we shall solve the problem of perfect utility, which means the ability and desire to be of the greatest assistance possible to our fellows and to work toward the uplifting of man and for the perfection of character.

Katherine Ball, San Francisco, Cal.—It has been said that of the art subjects, literature interests the greatest number, music a lesser number, and art least of all. The reason is not far to seek. Art is profound. It does not appeal to the people at large and in our public schools it is but a sufferance. There is instruction in drawing, but art instruction is something quite different; it is the education of our noblest sense, the eye. Taste varies from the lower to the highest according to the degree to which the individual has been educated, and it shows itself not thru words, which often mislead and do not express the true character of the individual, but thru the atmosphere and environment that one creates around one's self. We must create a true art atmosphere for ourselves. It is not a matter of splendor but one of simple beauty. We Americans are materialists and fond of display. But with display art has nothing to do. We must discard our false ideas and

strive to see what is beneath the surface. We may teach drawing all our lives and yet know absolutely nothing about art.

I wish that there were some way of teaching art principles outside of the drawing-class. It is not enough to study masterpieces and the lives of artists, and to content ourselves with schoolroom decorations that may or may not be art. We need to bring art into life thru the teaching of what is good in furnishings and decorations. We need art patrons who know something of art. We need museums where good art of every kind may be seen and studied. Our superintendents must be educated to a greater appreciation of the value and possibilities of art, for their support is a necessary factor in our success.

There is a theory and a practice; and the theory is valueless unless it is applied in practice. The eye is the only judge of what is good and what is not good. We must educate the eye and we must increase our knowledge of aesthetics.

THOMAS A. MOTT, superintendent of schools, Richmond, Indiana, spoke from the superintendent's point of view and regretted that the value of art education should ever be called into question. Mr. Mott laid emphasis on the practical value of art education, not merely as augmenting commercial values, but as developing that which is without price, the highest qualities of human character.

The schools can do much in the development of ideals and a sense of what is beautiful. The child quickly learns to distinguish good art from bad, and is capable of exerting a great influence on those around him. The influence goes out from the schools and affects the entire community. To cite one instance, thru the work done in the schools of Richmond, the shopkeepers are compelled to sell an entirely different class of goods from that formerly handled. The people will not tolerate what is cheap and tawdry, because their taste has been developed.

Those who have had some art instruction make better workmen. Their knowledge of what is beautiful increases their efficiency and thus from a purely utilitarian point of view the subject has a value. In many other ways the industrial wealth of the nation is increased thru a greater knowledge of beauty.

Art education is thoroughly practical. There should be no need of discussion. There should be art in every community, and that art should be centered in the schoolhouse, for from the schoolhouse the entire community may be influenced and everyone brought to a realization that art has a practical value.

But apart from the commercial value, the greatest value of the subject lies in its opening the "window of the soul." This is its most practical value.

MRS. ERNEST INGERSOLL, Evanston, Ill., expressed the belief that there is a growing tendency toward a national art development and emphasized the truth that art is not a matter for the few but for the many, and that it is after all simply an expression of what is within us.

A. B. CLARK, of Leland Stanford Jr. University, spoke optimistically of the development of art in the schools, and ventured the opinion that if the progress has been slow it is due to a large extent to mistakes on the part of the art-teachers. The essential is to develop an appreciation of simple beauty, and to show that it is not the cost that makes a thing good. The interest of the children must be aroused, and art presented in such a way that it may be grasped by the common people, for it is thru them that the work of the art-teacher must be accomplished.

MISS HARRIETT MOORE, of San Diego, spoke of simple work in color introduced into the schools of Brooklyn, N. Y., may years ago, and expressed her gratification at the great progress made in the teaching of color since that time.

T. L. HEATON, assistant superintendent of schools, San Francisco, referred to the necessity of teaching beauty in nature and in character as well as in art, and added that if the superintendents have been backward in their support of the art-teachers, it has been because the latter have not included all of art in their teaching.

UNIVERSITY ENTRANCE CREDITS IN DRAWING

A. B. CLARK, ASSOCIATE PROFESSOR OF DRAWING, STANFORD UNIVERSITY

Important articles on this subject appear in the published proceedings of the Eastern Art Teachers' Association for 1906.[1] Those by Messrs. Bailey, Dana, and Perry and by Miss Sewell have direct importance. Also the Educational Bi-Monthly for June, 1907, published by the Chicago Normal School, is an almost complete treatise on the manual arts in schools.

Present condition of drawing in the secondary schools.—Drawing realizes today, in the largest secondary schools, the dreams of the pioneer drawing-teachers of thirty-five years ago. It includes under the titles representation, design, construction, and art appreciation, not merely one course, but several.

Representation includes the grasp of form and beauty in both projective and pictorial drawing of type solids, household objects, plant forms, landscape, machine drafting and sketching; and the technique of pencil, crayon, and brush.

Design and construction includes the principles of balance, rhythm, and harmony; also the application of these abstract principles in designs, for book covers, title-pages, simple illustrations, color schemes for room decoration, etc.

Appreciation of the masterpieces of historical art; also modern civic art in parks, beautiful streets, and public buildings, is given attention in talks and lectures.

Working-drawings are made for objects involving both mechanical and artistic consideration, and in the manual-training shops, many of these, chairs, trays, book racks; articles for school use, as scientific apparatus, benches and tables; work in wood, metal, embroidery, and stencilling of fabrics, are actually made. These objects in their production demand thought, and the designing and making react most beneficially upon each other.

The result as a whole is satisfactory and gives the pupils great capacity for pleasure thruout their lives; and cannot fail to exert a most healthful and revolutionary influence upon the national arts and industries.

Superintendent Mott, of Richmond, Indiana, reported on Wednesday that in his city there is no question of the practical value of art teaching in the public schools, for during the past twenty years this teaching has revolutionized that city, so that people buy and enjoy better things in clothing, furniture, wall paper, and pictures. The art stores cannot sell what they formerly could; that the people so love beauty that examples of the best pictures and craftsman products of the land are taken to Richmond for the school exhibit each year, that people may form their taste upon what is best; and that the expense of this annual exhibition is borne jointly by the school board, the common council, and privately. The common council declare that no money they expend is so practical in increasing the fame and wealth of the city.

[1] These proceedings may be obtained from Mr. Arthur W. Richards, 33 Central Park West, New York City.

This curriculum was not developed all at once, but by single phases as: copy of ornament from print or cast; pictorial art, type solids, machine sketching, and abstract design have each been regarded as all-sufficient, and indeed are today so regarded by some schools. But the best schools approximate all the work above outlined, and not only give pupils the fundamental principles in practice of drawing and design, but more important still, train appreciation in the uplifting, or art side of industries. Walter Perry says, "it is more important to educate one hundred to appreciate art, than to educate one artist."

University recognition of creative instruction.—The larger universities give one entrance credit in free-hand drawing, generally; one in mechanical drawing, frequently; and one in architectural drawing, rarely. The nearest approach to a standard in free-hand drawing is the requirement of the College Entrance Examination Board. Their 1906 examination required two drawings: the first, a drawing of geometrical blocks to be drawn in accurate perspective from a described position, but with no blocks present, and with either line or with shade and cast shadows; the second drawing had several options, from memory, either a tool or detail of machinery, or a detail of an architectural ornament, a natural history specimen, or a detail of the human figure; or from copy, the enlargement of a machine detail, or of a scroll ornament. This whole requirement is reasonable as far as it goes, and it goes farther year by year; but it regards drawing as subsidiary and technical rather than independent and creative and thus omits its unique value in education as a complementary of analytic and "fact" training.

Definition of art in life.—Nearly every person, including the brick-layer, loves art and spends a great fraction of his energy in seeking to possess it. This statement may cause surprise, but it is true. A kitchen chair costs one dollar, the living-room chair from five to twenty-five dollars; a man's working- or camping-coat, from one to five dollars, and his best coat from ten to thirty dollars; a woman's sunbonnet or "tam o'shanter" fifty cents, and her best hat, perhaps, ten dollars, and so all thru. These are typical examples of the surplus cost which people pay, partially for comfort, but more for appearance. This surplus may be ennobling or degrading, but, 75 per cent. of expenditures for clothing, furniture, and building is universally paid for art, either good or poor.

Art needs an enlarged definition, it does not stand merely for pictures and statues, found chiefly in museums, which all should, but which few people do, understand, but, as Mr. John Cotton Dana has pointed out, it includes taste as applied to everyday surroundings: landscapes, the pictures in the daily papers; street bill boards; stationery and business catalogues; store windows clothing, buildings; decorations for festivals and fiestas, and in hotels, theaters, and churches. In these matters all people are concerned and pay the price of good art, but only the person of cultivated taste has ability to estimate real rather than spurious value, and so, ability to economize by striving only for those things which will give lasting satisfaction. A large part of spiritual sweetness

depends upon ability to buy or to make things in door yards, houses, and furniture which are artistically good and which will last instead of being discarded after a season's wear, because like "ragtime" they have lost their novelty.

Greater expenditure for art in pictures or in the applied forms enumerated is not so much desired as that the art which is produced shall be much better, and rightly enjoyed.

Good art is sane and reasonable, not extravagant and pretentious. Never should one assume that it concerns only dilettante. Art is for the humble as well as for the rich; it shows the beauty of the Parthenon, but also of the simple garden trellis; it is not an addition to life but an essential expression of life; not an addition to good building, but an essential part of good building; it includes the whole conception of plan, structure, form, and color, and not any mere frippery of "stuck on" ornament; it concerns not merely the picture on the wall, but the texture and color of the wall itself. The simple direct building in the type of house called craftsman and bungalow shows excellent art, which has no ornament, but which requires the highest skill in its design.

Art means, broadly, that quality in the application of taste and sense to everyday things which makes them peculiarly fit to arouse the higher spiritual emotions. The adequacy of art for this expression is proved by the knowledge of past civilizations which we learn alone from their art.

Mr. James F. Hosic says,

> The spirit of art is the spirit of art, whether it works with the greatest possible freedom in presenting a madonna or, within narrower limitations, constructing, and finishing a clock case. In both, the human mind is seeking to realize its ideals and present to other minds, for their enjoyment, its own dream of beauty.

If our craftsmen have not as fine spiritual perceptions, respect, and pleasure in their work as had the craftsmen of the Middle Ages, or as have the craftsmen of Japan, and if the customers of these crafts do not appreciate the spiritual qualities of craftsmanship, the schools are faulty, and are figuratively turning craftsmen over to the devil, for where shall one get good ideals if not in school? Education has no other function than to teach the essentials of happy living and nowhere is this responsibility greater than in the manual arts.

University entrance requirements in general.—It may be instructive to examine the general scheme of education as indicated by university entrance credits. An average list follows, the numerals indicating the number of credits allowed in each subject:

Language		Humanities		Science		Mathematics		Manual Arts	
English	4	History	4	Physics	1	Geometry	1	Freehand	
Latin	4			Physical		Algebra	1	Drawing	1
Greek	3			Geography	1	Intermediate		Mechanical	
German	5			Chemistry	1	Mathematics	1	Drawing	1
French	5			Botany	1	Plane Trig.	1		
Spanish	2			Zoölogy	1	Adv. Algebra	1		
Total	23		4		5		5		2

Fifteen of these units, or four years of study are required for university entrance. A pupil in preparing for college may have a daily exercise or test of his ability for four years in either English, or in an ancient language, or in a modern foreign language, in history, in science, or in mathematics; but in formative art, which needs as continuous training as these for the development of an equal amount of culture, the daily test can be had for but one year. And even this opportunity is denied, by some institutions, to liberal art students.

This attitude discourages art culture during the formative period of students' lives. It nips in the bud their taste for art, or compels them to attend an art school and so to be cut off from other culture, or, when a fair amount of art study is carried on in the high school, to do it without hope of university recognition. This condition long continued has made university people generally obtuse in art matters, so that, whatever of progress has been made in this line, has been in spite of university discouragements.

Hundreds of people say, on viewing an exhibition, "How I wish I might have studied the art side of drawing."

An arrangement of entrance credits based on the needs of life rather than upon traditional conventions and pedantry will assume equally thoro instruction in five fundamental groups, viz., language, humanities, sciences, mathematics, and manual arts, and will permit a student to spend, say, half his time in the group of his greatest efficiency (note the word "group," not subject), and the remaining time to equal portions of the remaining groups. Such education is both effective and broad.

But today, if the list above should be followed, a boy interested in beautiful handwork, and whose best strength can be aroused in no other way, must almost entirely forego that field for the eight years of secondary and university education. He trusts his destiny to the school authorities, supposing that they are educating him, but instead, his lesser possibilities are worked at, while his strongest nature is dwarfed. Yes, his greatest power for usefulness is made impossible by education. The same experience attends a girl who will find constant use for the practice of simple taste in her future home. She may spend as much time as she likes in any study except the one which for *her* would be the most inspiring center for broad education.

Is it not strange that, while in orations and writings on the supreme glories of civilization the names of Phidias, Michael Angelo, Raphael, Rembrandt, and others, as well as the beauties of Greek and Roman art should be so generally mentioned, the type of culture for which these stand is allowed such a small degree of attention and dignity in the university entrance list? A teacher who would be discharged for faulty spelling would be forgiven the grossest breach of good taste in schoolroom decoration. Happily, many schools are not entirely controlled by the entrance list, and so do attain good results.

Admitting that literature is more important than art, do the numbers "twenty-four" and "one" of the entrance list represent their relative merits?

Proposed credits for drawing entrance.—In view of the foregoing considera-

tions, the following examination questions are offered as implying reasonable teaching in drawing; altho schoolwork is preferable to an examination as evidence of merit:

A. Representation (similar to the college extrance examination above).
Make two drawings, one in light and shade, one in color, choosing from the following:
1. Geometrical models, from memory (postition to be described).
2. A machine detail, as a carpenter's plane, from memory.
3. Some object in the room, as a vase of flowers, a plant, a cast, or a fellow student.

B. Design.
Design and draw one of the following:
1. Working-drawings for a rocking-chair to be made of square-edged oak, and to be light in weight.
2. A sash curtain, with a floral border. Show the color scheme of the curtain, suggest the materials, and method of making, and the predominant color tone of the room.
3. Design full size the title page for a school program. Use a monogram or border.

C. Appreciation.
Answer both the following:
1. Choose one of the following photographs and tell wherein the merit of the original consists, discuss its thought, its composition, and its technical qualities, as compared to the similar pictures of the period preceding.
   a) Michael Angelo's "David" or "Creation of Adam."
   b) Rembrandt's etching, "Christ Healing the Sick."
   c) Whistler's "Cremorne Gardens," or one of his nocturnes.
2. A suburban village is to be laid out on one of the banks of a navigable stream; the stream curves in toward the village; hills parallel to the stream rise to an elevation of about three hundred feet a mile back from the river, and two winding ravines cut this slope. Sketch a plan of this village, showing the main thorofares and scheme for residence streets, the location of public buildings and park system; and describe the artistic features of the site which should be utilized.

Such an exercise as this last, and the criticism of masterpieces in secondary schools may seem presumptious, but remember that not technical merit, but intensive thinking about these things is to be stimulated; also that similar training in literature is successful.

Three credits should be allowed for all of this work, altho one credit may be arranged to cover a simple amount of training in each subhead. And the course of study can be accommodated to either the technical student in accurate representation, or to the girl of artistic taste interested in household art.

The obstacles to the carrying out of this scheme are, first, the inertia of the universities, second, the inadequate teaching on the part of many high schools. Many teachers are forced to teach with faulty preparation, or with insufficient time for thoro instruction. But the universities are the more to blame because they do not recognize the excellent work which is already being done in many places, and the pressure bearing on a school to teach only the subjects which will receive university entrance credit is tremendous.

The remedy is a campaign of education. Every educator should make it a professional duty to secure the reports of the conventions of drawing and

manual-art teachers and then to read and re-read them and see that school trustees read them; in this way ultimately making whatever of wisdom they contain available and effective for every pupil, teacher, and school trustee in the land.

In conclusion we affirm that:

1. The subject called "drawing" is not merely a subsidiary tool of expression like typewriting or stenography, but it is a branch of culture with its own educational content of formative art.

2. Formative art which concerns the spiritual value of many industries, and involves 75 per cent. of material costs, exerts such an important influence upon life as to demand from a fourth to a fifth of pupils' attention in secondary schools, and consequent recognition in university entrance subjects of at least three units.

3. Effective co-operation and individual effort on the part of art-teachers and art-lovers is necessary to bring about desirable conditions of art in education, and in life.

OBJECT DRAWING

EDNA B. LOWD, TEACHER OF DRAWING, LOS ANGELES, CAL.

The French have said that we are only playing with art in America; and at the Berne Congress where the American exhibit aroused much interest and praise, a lack of good drawing was deplored by some of our European neighbors. We often feel the same lack ourselves, when viewing our own or our neighbors' exhibit. Should we not consider this phase of the drawing-question carefully? Do we not waste much of our drawing-time flitting about from this to that simply because someone else has taken up a little different phase of the subject and has some attractive results? Do we have a definite idea in mind toward which we are working? As I am considering simply the side of drawing that deals with the study of form, I am going to assume certain conditions. Most of the drawing in the first eight grades is, and I think should be, creative drawing, illustration, and design. The little object drawing taught is presented mostly from the composition standpoint. Classes are large, with chance for but little individual attention. Drawing comes two or three times a week and lessons are more or less complete in themselves. There is not time, nor do I think the grades the place for any real study of objects. Of course schools and courses of study differ very much as to this, but I am assuming a situation that is, I think, becoming more the average condition each year. In the ninth year then, the first real study begins. The student is able to reason more, at this time, and get at the construction of things and half of his seeing depends on this.

My aim in teaching object drawing is to develop in the student the ability and the habit of expressing himself easily and freely in drawings; to appreciate the work of others, and to be so alive to simple beauty that he will demand and select more beautiful common things all his life.

I believe that all students can learn to draw as all can learn to write, that all can learn certain fundamental truths and their application in the drawing of cylindrical and rectangular objects. A student may be able to draw and express form well, and yet not appreciate the beauty about him. He may be able to make attractive drawings but that is not the result of any principles or study of form, but rather in spite of them. One of my teachers once said to us that all students have the power to appreciate, and that it is the teachers duty to develop this power. The mere drawing of objects alone will not develop this appreciation tho it may help.

I have not fully realized my aim, in teaching drawing, nor can I give you a positive rule that will enable you to do so. I can only give you some very commonplace suggestions that have been a help to me both as a student and a teacher. In your discussion of these papers I am sure you bring me something that will enable me to more fully realize my aim next year, as I trust some of my thoughts may reach your need. Few of these suggestions are original. I have made them mine by usage as you doubtless have already made many of them yours.

After considering conditions and deciding what we hope to accomplish as our ultimate aim, we need to plan a regular series of definite steps to lead toward its fulfillment. We must reduce things to their simplest terms, leave out all non-essentials, go slowly and so surely that good habits are formed and things taught so well that nothing will later need to be unlearned. Help the student start a foundation that is just as sure to build on later as his start in grammar, arithmetic, writing, or English. We can not make fine suggestive drawings till we can picture things in their entirety. No amount of fine phrases nor theory will enable a student to draw, nothing but intelligent practice, which comes in today's definite lesson and tomorrow's definite lesson. As Mr. Henry T. Bailey puts it, "If at first you don't succeed, draw, draw again."

Cylindrical objects seem easier in some ways, so we start with these. Our immediate aim is to get good placing and proportion. One definite step toward this aim is the ability and habit of blocking-in a drawing. Make sure that each understands what you mean by a blocked-in drawing. By limiting the extreme dimensions of the object in our drawing, we get better proportions between objects or parts of objects and between the size of the drawing and the paper. In blocking-in a drawing, too, we must see things in a large way; the main proportions, the main lines. It pays to insist on this from the start and you'll have to insist hard to get it if you have my experience. To be sure each is starting right—call for their papers at the end of two or three minutes often. What do you find? Often a hard-lined completed ellipse and no other mark on the paper? How students do hate to change this first start! Are your students apparently afraid they can never make another ellipse no matter how badly this one is drawn? And do they maneuver everyway to save this? Do they crowd the drawing, miss proportions, anything and everything, to save that ellipse? This is one of the things

I work hardest for from the start—to have students willing to change things and to keep changing things till the drawing looks right; to have a really good time putting things in with a loose, gray line and watching them grow; to know that nothing bad will happen to him if he has a good many lines on the side of an object or if the drawing is not a success. We want the ability to do, not a few labored results. Leave out ellipses till he finds where he wants them. Keep in the blocked-in stage till good placing and correct proportion are secured. This much is a good drawing, a complete blocked-in drawing. Then sketch in curves making all ellipses complete so we can get the proper relation of planes. Here we have a positive, definite thing. A horizontal plane on the level of the eye seems to be a straight line, above or below, it is less foreshortened. This is simple but it takes a long time to make it one's own sometimes. You all know and use some of the helps for those who do not see a foreshortened circular plane as an ellipse such as cutting the circle in cardboard and hinging it so it can be turned in any position. I have often found students who did not understand using pencil measurements after taking them. Aren't we apt to forget that our students are children even in high school and assume too much and go too fast for the majority? The few who draw well will get along all right with little individual help—give that freely to the ones who need the special help.

In selecting objects for models we can plan very definite steps and so simplify the work—cylinders, like a glass of water, bowls, vases, cups with handles. And here it pays to have lessons on handles alone, all kinds, thick and thin. We learn that it is often the line of high light that makes a handle look thick in a drawing and often the breaking or graying of a line that fastens a clay handle to the dish—makes it seem to grow from the body of the dish as all good handles should. Then objects with noses—pitchers and teapots—and special lessons here—then noses and handles. As the handle is usually opposite the nose on a dish a line from center of handle through center of ellipse will touch the center of the nose no matter what the position of the teapot or other dish. If we have succeeded in drawing with a soft gray line we can select and line in the correct line accenting nearer parts, the characteristic bits or the shadow side as we prefer, and no erasing is needed.

Much drawing by the teacher all the time in pencil as well as on the board is a great help to students. Sometimes to take a student's drawing, to make the necessary corrections, and to finish the drawing will help him much to see that he needs only to study a little harder to make his drawing better; that his start is all right; that he only needs to keep on to do what your greater experience has enabled you to do.

Many quick memory sketches are fine practice. If there is a tendency to think drawing is a waste of time, ask students to write the meaning and make illustrations of some of the things talked about, as a blocked-in drawing, a sketch; state the principle used in drawing cylindrical objects; define foreshortened, proportion, and other terms used in class. This may seem to

you too narrow for art instruction, but you'll find out some of the things that are still hazy to your student and he'll find there are some few definite things among the many more or less indefinite, and will realize that he needs to be more awake in the drawing-class.

In groups, the only added problem is to get the larger objects on paper without crowding and to be sure that each object has plenty of table space. If blocking-in and completing bases has become a habit these points are taken care of.

If the step to rectangular objects is made simply by posing a berry box or similar object and nothing is said at first of the perspective problem, it is taken more easily and naturally. I like to use Fred H. Daniels little railroad track scheme as given in the *Schools Arts Book*, and which illustrates in so familiar a way the fact that "distance makes things smaller and grayer." We can apply it directly to our box or book; can see why parallel receding horizontal edges incline toward each other; can understand that if parallel, receding, horizontal edges converge in the track, and down the hall and in the larger box that the same thing is true in a small cube or book and we must draw it so, even though we cannot see this convergence.

Our principle of horizontal planes is still and always will be needed.

After studying a few boxes and good-sized cubes we prove a few of each students' carefully, by extending edges with a string. Then he can see that parallel, receding, horizontal edges not only appear to converge to a point on the level of the edge but must be drawn so that, if extended they will meet on the level of the eye if the drawing is correct.

After practicing on cubes in all positions it is a good test to draw two lines of a cube on the board or in blue pencil on paper for the student to complete and then locate, that is, tell whether above or below the eye, parallel or at an angle to the observer.

In studying the posed rectangular objects so often the relation of the objects to the edge of the shelf or table on which it is placed is confused with its relation to the observer. This is especially troublesome if the table is not directly in front of the student. The use of a picture plane, if thoroly understood, will help clear this point. By picture plane I mean an imaginary, vertical plane always parallel with the observer and which is represented by the paper of the student. For illustration, I use a common window screen. By holding this parallel with the student and near the object he can readily see that the relation of the object to his individual picture plane has nothing to do with the relation of object to edge of table which he is not drawing; also that the vertical edge nearest the picture plane is the edge that must be drawn nearest the bottom of his paper. He can also understand more clearly that when a rectangular object is parallel to the picture plane the top or bottom and front face only show, when at an angle three faces show. Then to, it is often a help to draw with chalk on the screen to clear some point.

Sketching cubes, plinths, etc., and transforming into piles of books, tables,

stools, or skeleton chairs, i. e., a chair with only one line for rungs and legs keep the student interested and help him to see the necessity of being able to draw cubes and other rectangular framework well, that is without struggling. After this stools, tables, and chairs from the objects themselves are much more intelligently reasoned out.

For testing angles I like to use the two little strips of paper, but not till after they have had considerable practice in perspective, as they are apt to depend upon them too much if given at first.

In the first simple interiors or exteriors, after locating the level of the eye and blocking in main angles, it seems best to test these and correct before going farther, as the angles are hard to judge at first. In the square legs of a chair drawn parallel to the end of a hall, etc., the student learns the exceptions to the rule that only the top or bottom and front face show in a rectangular object when parallel to the observer. It is less confusing to learn these exceptions to the general rule at this time than at the beginning.

It seems best to me in all of this drill in getting the multiplication table of drawing to work in outline. There can be no "mumbled English" places that do not show as such. Each line says something, therefore the student has to study to tell the things frankly and squarely.

In beginning the light-and-shade work in pencil this little scheme has been a help both in pencil-handling and in the understanding of the difference between light and shade, and light and dark. First, make a scale of five values using a standard scale to work from, then a series of small drawings working from a scale numbering the values from light to dark. Obj. 1, B. G. 3, F. G. 2; Obj. 4, B. G. 1, F. G. 2; Obj. 3, B. G. 1, F. G. 4; then Obj. 1, B. G. 3, F. G. 2, showing H. L., light and shade, and cast shadow and then the dark and medium value object in same way. In the study of more difficult objects, work very directly with the fact impressed that no erasing can be successfully done in a light-and-shade pencil drawing as it destroys the surface of the paper. The groups must be so lightly sketched in that the lines used become a part of the tone, the aim all the time being to leave out just as much as possible and tell the story clearly.

Tinted papers with a touch of colored crayon add interest to the later work. A very thin water-color wash over the pencil is interesting especially for little roofscapes from the upper windows. Whether the student becomes a housekeeper, dressmaker, milliner, teacher, architect, engineer, or what not, he will find the little pencil ever ready to help him and he can often save hours of writing by a simple drawing, to say nothing of the pleasure and appreciation it affords him. Students usually like to work in pencil and by sketching with them, showing your sketchbook, copies of the pencil-work of Woodbury, Hornby, Vernon Howe Bailey, and others, you can influence them to do much more along this line to form a habit. Charcoal tone studies worked in a big decorative way are very helpful and most fascinating to the student. I like to put this after the pencil-work because it is more showy and students are there-

fore not so easily interested in pencil after the tonework. At first limit the tone studies to three values—later use four or five. A group strong in contrast of dark and light or a brown and white bean jar is a good object to start with. Common white paper is all right. First decide what values are to be used and where and make a note in the corner of paper; then make a medium tone all over the paper, rubbing down the charcoal with a soft cloth, or better still a sponge rubber. Wipe out the lights and put in the darks, keeping all tones flat and making the spotting very simple. Tinted paper adds interest. Select a color that will represent the light side of the lighter object and proceed as when white paper is used. Colored crayons that are not waxy may be used to suggest the other colors in the groups, and chalk the high lights. Common ingrain wall paper works well if you can get no other, or you can take more time and color the paper with vegetable or "Easy Dyes" and get most beautiful results.

Nature-sprays, fruits, vegetables, bits of buildings and pose all lend themselves nicely to this treatment, and as you cannot erase much without losing the flat tones it is excellent practice in direct work.

A tone study on white paper can be fixed, the white paper wet and color washes added in a very satisfactory way. Heavier paper often works best for this. By gradually decreasing the charcoal tone, that is, making it lighter each time, and using the color in fuller value, the step to light and shade in color is made easier. Backgrounds are difficult as we all know from our student days, too difficult for average high-school students it seems to me. Using tinted paper as background and relating the drawing to this background so all is harmonious, is more within the limits of the time and ability of the average student, and about as far as we can hope to take him in four years' work in a course well balanced in representation, composition, and construction.

DEPARTMENT OF MUSIC EDUCATION

SECRETARY'S MINUTES

FIRST SESSION—Tuesday Afternoon, July 9, 1907

The Department of Music Education met in the First Congregational Church and was called to order by President Hamlin E. Cogswell, director of Conservatory of Music, Indiana, Pa., at 2:30 P. M.

The session was opened by music by the Krause String Quartette, of Los Angeles, with *Op. 18*, No. 6, Beethoven, as follows: (*a*) "Allegro con Brio;" (*b*) "Adagio ma non troppo;" (*c*) "La Malinconia Adagio;" (*d*) "Allegretto."

President Cogswell introduced the exercises with brief introductory remarks.

A paper by Frederick H. Ripley, principal of the Longfellow School, Boston, Mass., on "The Ideal Music Supervisor," was read by Arthur C. Wahlburg, Fresno, Cal.

The Los Angeles Normal School Glee Club, under direction of Miss Hagan, sang a part song, "The Rose Is Such a Lady"—Gow.

The department then went into a committee of the whole to consider the report of the Committee on Uniform Course of Study, which was presented at the Asbury Park meeting in July, 1905, by the chairman, Philip C. Hayden (see pp. 667, 668, Vol. of *Proceedings*, 1905).

At twelve o'clock the department adjourned to meet in round table session on Wednesday morning.

SECOND SESSION—Wednesday Morning, July 10

The department was called to order at 9:30 by President Cogswell and resumed the discussion on a "Uniform Course of Study," which was commenced on Tuesday afternoon.

After a discussion continuing thruout the entire session the department, on motion, unanimously adopted the report in question, and the committee was discharged.

The department then adjourned.

THIRD SESSION—Thursday Afternoon, July 11

The department was called to order by President Cogswell at 2:30 P. M., and opened with a violin solo by Mr. Natrop Blumenfeld, of Los Angeles, who presented the following numbers. He was accompanied by Miss Orrie Coons. (*a*) Romance, G major, Beethoven (*b*) Serenade, Moszkowski; (*c*) Mazurka, Zarzycki.

Miss Estelle Carpenter, supervisor of music, San Francisco, Cal., addressed the department on "The Vitalizing of the Child thru Song." Mrs. Frances E. Clark, supervisor of music, Milwaukee, Wis., led in discussion of Miss Carpenter's paper.

A demonstration of rhythm was then given by Secretary Hayden, assisted by a pupil from his schools in Keokuk, Iowa, Miss Elizabeth Warwick.

A paper by Miss Fanny Edgar Thomas, representative of the New York *Musical Courier*, on the subject, "Free Musical Education a Necessity for the National Musical Art," was then read.

The president appointed the following Committee on Nominations:

P. C. Hayden, of Iowa — George E. Krinbill, of Arizona
Miss Estelle Carpenter, of California

The department adjourned.

FOURTH SESSION—THURSDAY AFTERNOON, July 11

The department met in round table session. The topic for discussion was a paper presented by Charles I. Rice, supervisor of music, Worcester, Mass.

The Committee on Nominations reported

For *President*—Mrs. Frances E. Clark, Milwaukee, Wis.
For *Vice-President*—George E. Krinbill, Bisbee, Arizona.
For *Secretary*—Ida M. Fisher, San José, Cal.

On motion, the secretary cast the ballot of the department for the nominees, and they were declared elected for the ensuing year.

President Cogswell offered the following resolution on music in normal schools:

Believing that the normal schools of our country should in every instance provide for a liberal professional training in all subjects taught in our public schools, and believing that in a majority of cases such is not being done in the subject of music, we, the members of the music section of the National Educational Association do hereby present in the form of a resolution, what we believe is necessary in the training of every normal-school graduate, and we recommend that this be printed and a copy of the same be placed in the hands of every normal-school principal for his or her careful consideration and be taken up for careful discussion at our next regular meeting.

Resolved, First—That the entrance requirement necessary before taking up the regular normal course, should be equal to that outlined in the course of study adopted by this body for the eight grades of our public schools. Such preparation to be afforded those who need it, in a sub-normal course of daily instructions during the junior year.

Second—That in addition to the above, normal students should study melody writing, elementary harmony, counterpoint in two parts, much chorus singing, and in addition to this at least one term in private training for tone production, and care of children's voices; credit to be given for any of the above work done in high schools.

Third—That at least one term should be devoted to the study of methods of teaching music, as well as psychological principles underlying each step, and to be instructed in the art of conducting all recitations.

Fourth—That every normal graduate be required to teach the various phases of the work during the senior year, either in the various grades of the training-school or to other members of the class, and continue to do so in the presence of a critic teacher until the work done is satisfactory.

As it was impossible, owing to the lateness of the hour, to discuss the resolution offered it was, on motion, ordered that it be printed and sent to the presidents of the normal schools in the country for their consideration, and that it should be taken up for full consideration at the next annual meeting.

It was voted that an effort be made to establish affiliated relations between the department and the Music Supervisors' Conference. The following committee was appointed:

Mrs. Frances E. Clark, of Wisconsin.
Ida M. Fisher, of California.
George E. Krinbill, of Arizona.
Philip C. Hayden, of Iowa.

On motion of Miss Estelle Carpenter, of California, the thanks of the department were extended to Philip C. Hayden for his efficient services as secretary of the department for many years.

President Cogswell, on behalf of the department, extended thanks to Miss Kathryne E. Slone, Miss Verna C. Blythe, and Mrs. Parsons, of Los Angeles, for their valuable assistance in arranging for the department meetings, and for various courtesies and also to those who had furnished music for the department meetings.

The department then adjourned.

PHILIP C. HAYDEN, *Secretary*.

PAPERS AND DISCUSSIONS

THE IDEAL SUPERVISOR

FREDRICK H. RIPLEY, PRINCIPAL OF LONGFELLOW SCHOOL, BOSTON, MASS.

Theodore Parker once said,

> Every man has at times in his mind, the ideal of what he should be, but is not. This ideal may be high and complete or it may be quite low and insufficient; yet in all men that really seek to improve, it is better than the actual character. Man never falls so low, that he can see nothing higher than himself.

The ideal supervisor of music must be something better than the best that now is; he must be stronger, wiser, and purer, else he would not be ideal; yet his greatness must consist of qualities which all may profitably emulate. He must be a gentleman, a scholar, a musician. He must be deeply sympathetic, profoundly wise, infinitely gentle. He must be a leader, and by his art draw all men after him. He must be a deep student of human nature; yet he must never lose faith in it. He must overcome spite, envy, malice, even hatred, without sharing them. In a word, he must be

> A combination and a form indeed,
> Where every god did seem to set his seal,
> To give the world assurance of a man.—*Hamlet.*

But to be an ideal supervisor of music demands special qualities, additions to that general summation of goods which must characterize all men who stand before the community in the teacher's office. He must have special knowledge and special powers which fit him for his difficult position. The relations which he sustains to the school superintendent, to the school principals, to the teachers, and to the scholars, all demand careful consideration and ideal treatment, for no one may exert a greater influence for good or for evil; no one may enter so closely into the life and thought of the community; no one may raise higher ideals in others; no one should be so well fitted to inspire to heroic action as he.

Music is the language of the soul which is the source of spiritual life and worthy action. Music is the means by which all art impulses may be stirred. It is therefore the avenue to heaven. Who therefore controls this mighty influence in the community, controls the community.

Who is worthy of this great trust? Truly none but the ideal supervisor. Yet he will not be known, he will never be discovered; like the health-bringing quality of this delightful climate, which thousands come to breathe, he silently, imperceptibly, penetrates to the very source of life, does his work, and passes on, unnoticed. This *must* be so, because the invisible things of life are eternal, and it is the business of the teacher to render himself useless to his pupils.

It is a sad thought, but it is a true one. Those who have influenced your life most profoundly are to you unknown.

Here then is a paradox. How is our ideal supervisor to be sustained and

appreciated so that he may do his work, and yet be ever invisible, unobtrusive, apparently useless.

If to win the popular approval and to enlarge his influence he descends to show, to public exhibitions, to vainglorious display, he clips the very wings by which he must take flight, and falls to earth while on his way to heaven.

It is the fact that the deeper influences of life are unknown, unobserved, that brings a lack of public appreciation to the teacher. Yet when the teacher would take by storm the place he fain would have, he loses the fairest jewel in his crown and, if successful in his quest, but proves his own unworthiness.

We may not expose our art with any more safety than we may expose our love or our religion, for to expose it is to lose it; or better, we may but expose the fact that we lack it. Carlyle says,

> Prominent world leaders do prosper by their quackery for a day. It is like a forged bank note, they get it passed out of their worthless hands; others, not they, have to smart for it. Nature bursts-up in fire-flame. French Revolution, and such like, proclaiming with terrible veracity that forged notes are forged.

On the other hand, we have the striking example of Bach. Of him Mr. Mason has just said,

> Bach lived quietly and in almost complete obscurity; for the last quarter century of his life, he held a post as teacher of music and church-music director in Leipsic. He traveled little, sought no worldly fame, took no pains to secure performances of his work, and above all, made no compromise with the popular taste of his day. He produced his great compositions, one after another, in the regular day's work, for performance in his church or by local orchestras and players. He never pined for recognition that in the nature of things he could not have; he wrote the music that seemed good to him and thought that his responsibility ended there, and that his reward lay there. The cynic who said "Every man has his price" was evidently not acquainted with the life of Bach. Steadily ignoring those temptations to prostitute his genius for the public's pleasure, which so materially affected the life course of his contemporary Handel, he followed his own ideals with an undivided mind. As always happens in such cases, since it takes decades for the world to comprehend a sincere individual, or even centuries if his individuality is deep and unique, he was not appreciated in his lifetime, nor for many years after his death.
>
> Indeed he is not appreciated now, for a man can be appreciated only by his equals, but we have at last got an inkling of the treasure that still lies hidden away in Bach; and while Handel and other idols of the age sound daily more thin and archaic, Bach grows ever richer as the understanding we bring to him increases, and still holds out promise of novel and perennial artistic delight.

Our ideal supervisor must emulate this great example; he must reject the unworthy and immediate for the worthy and permanent. This means that he must take a broad view of the field and work it as a whole, not in isolated, unrelated fragments.

The whole field is indeed a stupendous one. Let us consider the pupils first. They are in classes; the classes are in grades; the grades reach from the kindergarten to the college; and fourteen years likely are required for their accomplishment.

Here stands our ideal supervisor with a scheme of work which shall not only afford pleasure and profit over fourteen different stages, but shall take the

little one on the first round of the ladder and lead him step by step to the top. Our ideal carries therefore two distinct phases of his work at all times. He has in mind just what he will do for the individual pupil who is just beginning, what steps shall be provided for his development, at every stage in the course, and he has the immediate problem of ways and means for the various groups of pupils who form the classes along the line of promotion.

The ideal supervisor never loses sight of the possibilities locked up in each individual. He regards the individual not as he is, but as he will be after years of training. No provision is made for the removal of the pupil, he must be regarded as a permanent charge, a fixed responsibility, and every effort must be made to develop his several faculties to the highest degree. The plan which the ideal supervisor adopts is a large one, yet in detail it is perfect, it omits nothing that is necessary, nor includes anything that is unimportant. It provides for the employment of every moment of the pupil's time, in activities which are in themselves enjoyable, but which also yield that higher satisfaction which is incident to a feeling of gain in power to do, and of knowledge of art.

The technical knowledge which is required, our ideal has always at hand. He understands child-nature, and has faith in it; he understands child-development, and promotes it; he is conscious of child-weakness and dangers, and he avoids them. He inspires with hope, courage, and confidence, and when the end is reached he leaves his pupil, a self-reliant, responsible, thinking creature, prepared not only to do the things he has been taught to do, but to reach out into still wider fields and grapple successfully with new problems.

THE TEACHING–FORCE

The ideal supervisor studies the teaching-force with the same care that a good soldier looks to his arms when going into battle, for unless the teachers sympathize with the supervisor and co-operate with him, the result will fall from the ideal standard.

The teaching-force, that is, the teachers in charge of classes, collectively and individually, must see in our ideal a model of order, precision, punctuality, good teaching, systematic preparation, and sterling character.

The music course will unfold before the teacher by such regular and logical steps that she will be inspired to apply the principles involved to her work in other branches. She will catch the spirit of the effort, and realize that unless she takes part in the music her power and influence for good will fall short of the best. It is therefore a main business of the supervisor gently to draw every teacher's attention, to interest her and encourage her to work with him, and finally to render himself so unnecessary to the teacher that she will go on without him and take pride in showing how well she can handle the subject alone.

In this part of the work, the supervisor requires the greatest skill. To enumerate the difficulties which the supervisor must overcome would be impossible. No one has expressed more forcibly the one essential element in the work, however, than Carlyle who says,

Every man that can be great or have victory in this world, sees, through all entanglements, the practical heart of the matter; drives straight towards that.

It is notable how Napoleon in Saint Helena, still, to his last days, insisted on the practical, the real. "Why talk and complain, above all, why quarrel with one another? There is no result in it; it comes to nothing that one can do. Say nothing if one can do nothing!" He speaks so often to his poor discontented followers; he is like a piece of silent strength in the midst of their morbid querulousness there.

Our ideal supervisor has no cloudy vision, no dim outline of things; he sees the heart of the matter and strikes at that. He is not impatient; he does not dispute, but he goes straight on; he accepts misunderstandings, misrepresentations, abuse even, as a part of his lot, as an inevitable accompaniment of efforts like his. He does not take time to consider these things in their personal bearing, but he sees ever his great plan, and his plan includes these things and hence must succeed with them. His plan is so large that when seen as a whole these things are but trivial incidents, capable of affecting small, temporary, and non-essential elements only.

The ideal supervisor sees from the beginning what each teacher is to become, just as he sees what each pupil is to be. He never regards either teacher or pupil as fixed and unchangeable, but as things to be developed. By action, by doing something however trivial, forces are to be aroused which will direct to another act, and this to another, till a distinct power is developed. Never will the grade teacher leave the room, mark papers, or attend to other work while our ideal supervisor is at work. She will be helping; helping in ways that gradually bring even the most unpromising candidate, into the very center of the arena. Her efforts will be appreciated, her results praised, confidence will grow, and mutual regard be established.

THE PRINCIPAL OF THE SCHOOL

With the principal of the school our ideal supervisor must also have relations. Here he will cultivate every virtue that will make him truly contribute to the principal's success. He will not regard it beneath his dignity to do things that are quite outside of his prescribed duties. He will remember that some difficulties are distinctly his own, and that he must not increase the burden of his superior officer. He will, therefore, refrain from complaining of the teachers' work, remembering that the teacher is to be won by a long and carefully considered course of kindly treatment.

Our ideal supervisor will never allow himself by absence or tardiness or irregularity of any kind to fall under the criticism of the principal. He will restrain his temper, always be polite, never be in haste, and submit gracefully to suggestions which must be tactfully disregarded. The principal, too, must be his pupil and, by a treatment similar to that accorded to the teacher, he must be made to appreciate the importance of music and to recognize its influence on the entire school course.

Our ideal supervisor is a student; he is the equal of the principal in scholarship and in general culture; in music he should be his superior.

THE SUPERINTENDENT OF SCHOOLS

The relations existing between the ideal supervisor and the superintendent will indeed be ideal. Here he comes in contact with the man who is responsible for the success of the entire school system. He should never act independently of him, should never be the cause of weakening his influence, should refrain from all gossip and scandal, or criticism, even, of schools and teachers. He should tell of good, wholesome, helpful things only, and refrain from entanglements that may involve the superintendent and his subordinates.

The ideal superintendent regards the school and all that in them is, as his charge. He does not consider even our ideal supervisor as a man in charge of an entirely distinct and unrelated department, but he views him as a valued and trusted lieutenant, who contributes probably more completely to the success of the system than any other one person, and the supervisor without conceit or ostentation may wisely assume that dignity and importance to which his ideal work entitles him.

If these relations do not now exist in this form our ideal supervisor will labor to establish them and, being ideal, he will succeed.

THE SCHOOL BOARD

We now come to the consideration of the relations of our ideal supervisor with the school board. Here again, he is the subordinate, the employed. He is to obey orders, he is to accept what is awarded him, but, as in the other cases, he is to exert a profound influence by his character and his work. He is to show by his character that he is above corruption, and that his recommendations for material are based on conviction. He is to show by his work that he has a broad plan, the product of a broad mind, and that in selecting material the whole plan is in his thought.

He must avoid even the slightest appearance of prejudice, of unworthy motives, and having made his recommendation, he must be prepared to accept gracefully whatever decision the board makes. When the decision is made, he must address himself with all earnestness and good faith to the task assigned him, never holding the board responsible for any failure in the course.

Being provided with material however inadequate, does not affect the effort of our ideal. He still has his plans matured; the pupils, the teachers, the superintendent are all with him and will assist him—not perhaps to get other material, but to bring the material in hand to the highest stage of usefulness, and by exhausting its resources, demonstrate its value.

THE PUBLIC

The ideal supervisor is in great danger when he is brought into relation with the public in general.

The popular demand is always somewhat below the ideal. Truth and duty lie on one side, therefore, while popularity and general appreciation lie on the other. The ideal supervisor must regard both. He must firmly resist the tendency to exploit school music in public parade and on festive occasions

with its inevitable loss of time and regular study in preparation and the reaction and indifference which are sure to follow, but he must be willing to assist on proper occasions with contributions which lie in the path of his development. He must avoid the brass band and waving of flags, but be ready to present the art side of schoolwork in a dignified and worthy manner. In all he does, he must keep his great office ever before his mind. He must at times bend to the popular will, but it must be under great provocation and the spirit of art must never be degraded. The sort of popularity which great display and large numbers bring is not for our ideal supervisor. His influence must be far more subtle, deeper, more lasting. It must be based on the influence which each child carries from the school to the home day by day, little by little, all pervading, everlasting.

In this matter I have the ideal supervisor in mind. He has spent, lo these many years, in a great and flourishing city. Whatever faults of method he may have, however poor his general plan of development may be, we care not, for in a whole city-full, not one voice but sounds his praise; praise not of the man, not of his music, but of the silent, persistent influence for good which he has sent to thousands of humble homes. You cannot think who it is? Well, he does not care!

One more word and we are done, but this time it is Carlyle's word. It should be learned by all who would emulate our ideal supervisor.

No man adequate to do anything, but is first of all in right earnest about it, first of all a sincere man. I should say sincerity, a deep, great, genuine sincerity is the first characteristic of all men in any way heroic. Not the sincerity that calls itself sincere, ah no, that is a very poor matter indeed; oftenest self-conceit mainly. The great man's sincerity is the kind he cannot speak of, is not conscious of, nay, I suppose, he is conscious rather of insincerity; for what man can walk accurately by the law of truth for one day. No, the great man does not boast himself sincere, far from that; perhaps does not ask himself f he is so; I would say rather, his sincerity does not depend on himself; he cannot help being sincere! The great fact of existence is great to him. Fly as he will, he cannot get out of the awful presence of this reality. His mind is so made; he is great by that first of all. Fearful and wonderful, real as life, real as death, is this universe to him. Though all men should forget its truth and walk in vain show, he cannot. At all moments the flame-image glares in upon him; undeniable, there, there!

I wish to make this my primary definition of a great man. A little man may have this, it is competent to all men that God has made; but a great man cannot be without it.

THE VITALIZING OF THE CHILD THRU SONG

I

ESTELLE CARPENTER, SUPERVISOR OF MUSIC, SAN FRANCISCO, CAL.

This Fourth of July, just one week ago today, found a very touching scene enacted in our city. Thousands of people celebrated the day by song and speech in Golden Gate Park. If by chance you had been passing the pathways and drives, you would have come across the men, women, and children wending their way toward the stadium where the exercises were to be held.

There, in spite of car strikes, the people were showing their patriotism. Those who could not ride were walking. They were carrying their lunches. They were out for the day. The boys and girls were trudging along with no complaint. It would have touched you to have seen their happy faces, and moved you, as it moved me, when you realized that a group of little girls of six, seven, eight, nine, ten, and fourteen, would yet have two miles to walk before they reached their destination. I stopped the carriage and bundled them in and saved their energy for the singing. Yes, for those little ones were going to sing; that was their part of the program. Never a word of complaint as to the distance; never a wish to ride even, only so happy to be able to sing. They laughed and called to other groups as we passed, "to be sure to get there on time." There seemed to be a spirit of sympathy in the air—strangers smiled at one another at the sound of happy voices, and hastened their steps toward the goal.

Why was there all this joy and gladness? A great feeling of love for country was brooding over the city. A day when everyone forgot differences; when the souls of people awaked; when troubles seemed to fly; a universal impulse was moving them, and the bright sunshine and the summer air seemed all the more precious and exhilarating. Our country, our state, our city belonged to us more than ever, and again our hearts pledged fealty and loyalty to the best of our ability.

So these thousands of people paused in their strenuous life to again send out their patriotism. Is it any wonder that it seemed impossible to have such a day of patriotism without the singing? Is it any wonder that the committee wanted the children to sing? Did it not seem right that these little hearts should pour forth their delight in honoring the nation through the patriotic songs of the country?

Because of many reasons, distance, strikes, no rehearsals, and my trip to Los Angeles to meet you, I tried hard not to have the chorus, but how thankful I was when I reached the scene that I could do my part with the children, to help them lift up their voices in song because our hearts were stirred with loyalty.

I am sure these songs in turn strengthened patriotism, and made stronger in the hearts of the older people the love of home and country. I am sure that that Fourth of July will always inspire them and the memory of the beautiful day, with its great stretch of green grass and moving trees, the sweet childish voices, the noble speeches will all bring back the words composed by Henry Van Dyke and sung to them, to the music called California:

I love thy inland seas,
Thy capes and giant trees,
    Thy rolling plains;
Thy cañons wild and deep,
Thy prairies' boundless sweep,
Thy Rocky Mountains steep,
    Thy fertile mains;

Thy domes, thy silvery strands,
Thy Golden Gate that stands
Afront the west;
Thy sweet and crystal air,
Thy sunlight everywhere,
O, land without compare,
I love thee best.

The outpouring of these sentiments in music seemed to make more vital the content of the words. The music called forth an emotional element more poignant than words alone could have done.

The other day I stepped into a cobbler's shop, and imagine my astonishment when I found the cobbler a rapt listener to a march from "Aida" which was being produced in a phonograph. The shoemaker, together with his assistants and his pets, a rooster, a cat, and a dog, were enjoying the music immensely.

This was a modern adaptation of the scene from Wagner, I assure you, and though not so musicianly, still it seemed to give pleasure. The very smiles on the faces of the men, the gleam in their eyes, and the tones of their voices, the sound of their hammers, all told the fact that the music had affected them.

When we are stirred deeply by simply listening to the right kind of music, how great a factor it may become in awakening and stimulating the emotions when the music is actually sung, and when is it studied about and loved.

The emotions may be intensified and uplifted by the continuous use of the kind of music that will have the correct effect upon the impulses.

If these impulses respond quickly and exactly to certain kinds of melodies and harmonies, then it is our business to know what causes will bring certain results; it is our duty to see that these causes are put into operation, so that the desired results may be produced.

Because it is natural for the civilized being to give expression to the emotions thru the use of the vocal organism, it is our duty as educators to find a way to make song-singing a more universal custom. There should be more singing in the homes, in the schools, in the churches. Music should be recognized as an essential and as important as fresh, invigorating air in the schoolroom.

In fact, it creates an atmosphere and refreshes all those who enter into its realm. That is, if it is understood and the meaning of the composer correctly interpreted.

This power of song is so forceful because it reaches "the innermost center of us all, whence truth abides in fulness," and thence arouses the essence of the man or child, and if presented correctly, it quickens the mainsprings of action. It has the power to formulate the motive of life.

When a child is possessed of this power of pure song, it is, as it were, a gift more precious than diamonds; it is a fountain of joy. It makes these words seem possible; "I am youth; eternal youth; I am the sun rising, the poets singing; I am the new world; I am a little bird that has broken out of the egg; I am joy, joy, joy."

How I remember a certain outburst of song from a party of tourists travel-

ing in the Yosemite. We had just crossed the highest point in the journey; we were eight thousand feet above the level of the sea. We were descending into the valley. On one side of the road there were steep rocks, on the other side of the road were many beautiful redwoods, a green meadow, the running river, and high above all rose the sheer and tremendous "El Capitan," three thousand feet high.

We were breathless, silent, stupified by the wonder, the grandeur of those massive boulders, those immense walls so high and sharp; we said nothing; we thought nothing; we were held and gripped by an elemental emotion.

All at once we drove around a curve, and there before our view from the top of rocky heights 2,600 feet high sprang with a roar the Yosemite Falls. It poured over in one leap, 1,600 feet, then formed a short cascade, and then jumped 500 feet. We were speechless; then our feelings surged and broke loose; with one accord, we cried out; we were on our feet; our hats came off, and waving, we sang;:

My native country thee,
Land of the noble free,
Thy name I love.
I love thy rocks and rills,
Thy woods and templed hills,
My heart with rapture thrills,
Like that above.

I never can forget the moment; America and Yosemite Falls seem to belong together. That rush of feeling of admiration, awe, love, and patriotism expressed thru song is undying, and will always be an inspiration to higher endeavor.

We all know from the earliest ages that the song and dance have been joined together, and that both are the outcome of the feelings; that the Egyptians, Hebrews, and Greeks were distinguished for the song and dance and beautiful plays.

It is the knowledge that emotions are the cause and produce active and vocal utterances, that makes us careful in the selecting of the strong rhythmical songs for the child who is just beginning to deal in song, because the history of the child is the history of the race. By the use of strong rhythms which are caused by elemental emotions, we hope to awaken a response to rhythm and arouse the elemental emotions in the child.

Just as the dance forms grew out of the dance, so the songs of home, country, God, and war grew out of the elemental emotions of love, fear, courage, and worship. So by giving the folksongs and patriotic songs, we hope to arouse the children into action. The emotions can be stirred most deeply by the singing of these songs; patriotism, love of home, and love of God in the truest sense can be forcibly impressed thru these songs. Besides, from an educational standpoint, also, it is wise to instruct children in the different songs of the nation, and to tell the children the names of the men who wrote the words and music of the different songs. As a rule, people are not familiar enough with

the names of the men whose songs have lived. Neither do they know the songs of other countries by their correct names. So it is advisable to teach as many interesting ones as can be found.

But of course the songs that refer to our state and our Union should be taken first. It is while the children are still small that we must give these songs, so that each heart is instilled with a strong love of our own United States. It is these songs that vitally grip the children. It is the music of these many songs that has lived for years. They have survived by reason of their truth of expression, not only of the spirit of the period of their birth, but because they are heart-truths; an outpouring of musical thought and feeling of the most comprehensive kind. They came from the people and belong to the people. They never die. They are expressions of all that has touched the springs of action. Thru them we can sympathize with the sorrows, joy with the joys, and fight for the rights of those olden people. These songs express not only the old-time emotions, but also express the heart's emotion. So they will always be dear and beloved melodies to use, from which we may gain strength and comfort.

This music which so easily affects the young minds, added to the stirring or tender words of the songs, will hold and influence the hearts of those who sing. In almost every one of these songs there is a particular story that can reach the interest and emotions of the children.

In giving the songs, I beg that whenever there is a story that can be told about a song, the teacher will tell the story to the pupils, and will not fail to draw out the best sentiment of each song, so that the children will be inspired, not only by the music, but by the associations of the noble thoughts embodied in the words.

We never know just what story or what word will impress the individual child. Thru the peculiar influence of music, the child is most susceptible during the singing-lesson, so let us not forget that in the use of music in the school-room, we have a tremendous power of awakening and vitalizing the highest in the child.

These songs are not only beautiful to hear, but they should refine and influence for good each boy and girl who really sings from the heart. These songs have lived. These songs have stirred men to fight and die for their country. These songs have soothed, comforted, and uplifted many great and noble men. Think how the "Marseillaise" aroused one French army, and how many have been helped to better things by "Lead Kindly Light" and "Abide with Me."

So I would ask that wherever there is a chance of appealing to the best in the boy and girl thru song, that you do so, for by means of the song you are enriching his ideals. You are leading him to make for himself strongholds that can never be destroyed, pictures that will not fade, treasures that will be priceless!

When the familiar words and melodies of the old songs are heard, they

will always be interwoven with your explanations and your inspirations. These songs will bring back the innocent and happy state of youth, the springtime of life, so full of joy and love. Thus new energy will be given and fresh courage will bring power to attain the best in character and citizenship.

This method of vitalizing the child thru song is happily not only strengthening the right emotions which lead to right action, but also is a means of affecting the quality of the voices. We well know that the sweet child voice disappears entirely if the child back of the voice is indifferent, when carelessly singing with no thought of content of song; the body in poor position; the breath lazy; the eyes roving, the lips and jaws stiff; then the voice is apt to be harsh and nasal, or breathy.

In thinking of giving higher good to the child, that is, in developing his nobler emotions, intensified by the study of the songs and by reaching the inmost center of the child, not only the impulses for good are strengthened, the motive purified, but also you have solved the difficulty of the child voice. 'Tis true, tho wonderful, that when self consciousness is destroyed, when the weeds of the voice are pulled out, when active interest and concentration are induced, then the vocal organism adjusts itself, and all stiffness of muscles disappears, when the right feeling of the child is aroused, and is expressed, then the true flower of the child-voice blossoms. It is so pure and sweet that words cannot describe it, but it seems to touch an unseen chord in every listener's heart.

Just as the artist forgets self in the meaning of the song, and pours out the inner feeling, so the child, the true child, will, if guided rightly, give forth the sweet and true voice, the sweet and true emotion.

This method of teaching songs may be the most difficult, for it means that the teacher must be vital, must know how to reach the interest and heart of the child; but after all, it is the best, because it makes for growth on the part of the teacher, as well as the child. It means not only looking for music, for the sake of music, but also working with music for the sake of the child. When interested in the songs, the child will become interested in the composers of the different periods, just as in the study of literature, there is an interest in the life of the author.

From the interest in the songs and composers, will grow an interest in how songs are made, and the child will become creative in his effort to imitate, and he will be ready to study more advanced music. His own power in sight-singing will inspire him to work, and much experience will help him enjoy the great masters, and these will lead him to recognize the true from the false.

The individuality of the child will be brought out, and with his knowledge on hand, he will be able to achieve more thoro work in creation and appreciation. "A foundation for musical appreciation in the form of a national musical education is absolutely necessary," says Mr. Henry Labee, "if there is to be a discernment of the real merit of musical compositions."

A wish for this higher learning in music will be stimulated by intense interest

in the subject of singing. This interest will be created by the emotional element, thru study of songs and exercises, and thru the personal effort of conquering difficulties and creating bits of melodies.

There is not enough use yet of the vital song-singing and teaching; there is not enough value yet placed on the subject of music for the vitalizing of the child. You and I know that there is no other subject that can so grip the whole child. The best of the physical, mental, and spiritual nature can each be touched, vivified, and strengthened by use of the right kind of song-singing.

Self-consciousness is knocked down, and the real boy away from hardening influences, has a chance to dominate thru song. When he once gets a taste of this joy that comes from hearing and giving forth the right and beautiful music, he not only realizes there is a world of pleasure always open to him, but it gives him power, poise, and higher development because it gives him a higher love.

These interests will so vitalize the individual that no matter what path of life may be pursued, no matter what vocation may be taken up, the person will be a broader, deeper, more forceful, truer man or woman.

It seems to me that knowing such to be the case, we should consecrate ourselves anew to this great work, and feel that we are thrice blessed to be able to help on the cause of humanity in so beautiful a way. The road may be hard, sometimes; still we should be thankful that we may help others to "laugh and love and lift."

MY CREED

I would be *true*, for there are those who trust me;
I would be *pure*, for there are those who care;
I would be *strong*, for there is much to suffer;
I would be *brave*, for there is much to dare;
I would be *friend of all*,—the foe, the friendless,
I would be *giving*, and forget the gift;
I would be *humble*, for I know my weakness;
I would *look up*, and *laugh* and *love* and *lift*.—*Howard Arnold Walter.*

II

MRS. FRANCES E. CLARK, SUPERVISOR OF MUSIC, MILWAUKEE, WIS.

The vitalizing influence of song in the development of the child is a force that even the devotees of music do not yet half understand, nor half utilize.

In a way song is greater than poetry or music. It is the offspring of the marriage of these two divine gifts, the child of love, strong, effective, beautiful, in the degree in which this marriage be a true one, representing mutual self-sacrifice, oneness of purpose, a perfect welding together of the highest powers of the two, an inspiration on the part of each to touch the robe of divinity.

Music is greater than song in its scope and power. When it lends itself to poetry many sacrifices must be made, in song, in range, in form, in size, and in content.

Poetry alone is never so effective as when its beauty of rhyme, of meter, of thought, and elegance of language is enhanced by the vital touch of its God-

given spouse, music. Longfellow aptly said: "Lend to the rhyme of the poet the beauty of thy voice."

The love of music is almost universally innate; very few people are without a genuine love of music in lower or higher form. The village band, the circus calliope, even the hurdy-gurdy and hand organ find many hundreds of listeners.

The problem of the school-music supervisor is to take the beautiful and attractive song form of this force, and use it as a means of vitalizing the brain-center of activity, the emotion, thought, and will.

In the little child the use of language is much earlier developed than the use of melody, hence the story form of song is most attractive, but it must be a story of which he knows the meaning.

Until within very recent years, our songs for kindergarten and primary grades have been much too long, too big, too involved in thought and language, too heavy, slow, and uninteresting in melodic construction, to admit of their use as vitalizing forces to the child.

A child can be enthused in a minute or two to the bubbling stage with a little song story about a flower, a brownie, a bee, a "teddy bear," a pony, a dog, a fairy, a mother-love theme, or any theme that legitimately belongs to the realm of "maybe-so" or "once upon a time," if it is told in childlike words and bright catchy melody that sings the same story that the words are telling.

Words are such wonderful things, so fraught with meaning, so susceptible of a thousand shades of thought that illuminate the whole story. The true poet uses such words as express his meaning in most beautiful form. The meaning is often involved and to the child quite obscure. Here is the point of failure of many teachers whose classes are not vitalized; songs are sung again and again, containing words and idioms that are as Greek to the children, words that have not been reached in the language course or readers—without whose meaning the song is a mystery or empty of thought pictures.

No one who has ever sat under the teaching of that great apostle of vitalization, Tomlins, can fail to realize the value of painting a mind picture of each story word or word whose meaning is only made clear by singing thru vitalized tones. Can you ever sing the word "bell" without thinking of its marvelous ringing tone? or the mighty phrases of the text of the *Messiah* without hearing his wonderful interpretation of the inspired "Hallelujah"?

It is easy to paint a picture of the scene involved, to make clear the environment of the poet, the references to historical or geographical facts, which make the song alive. Who can sing "Annie Laurie" without a thought of Scotch idioms and scenes? or "Bonnie Doone," or "Flow Gently Sweet Afton" without telling of Bobbie Burns? How can one sing "The Vesper Hymn" without painting a picture of the listener, the lake, the monks, the mountain chapel, and the chant?

Yet just these things are done every day, by careless, thoughtless, or incom-

petent teachers, allowing the children to float or howl along mechanically, saying words they do not understand, and whole songs whose pictures are to them like crude designs on wall paper.

The power of the song to vitalize, lies largely with the teacher, the most beautiful song falls lifeless if presented by a listless expressionless teacher. Of all travesties on vitalization, the worst is the attempt of a self-constrained, impassive, calm, expressionless teacher, standing aloof and prim, stiff as a statue of William Penn or Chief Watello, in the front of the room ten feet away from the nearest child, trying to get enthusiasm from fifty little wigglers intent on other affairs. To vitalize the child means first to vitalize the teacher.

On the other hand, however, it cannot be denied that this same process of vitalizing the child thru song is often more properly hypnotizing the child thru the exaggerated efforts of the vaporous, butterfly teacher. Life and animation in giving a song are indispensable, but often I fear, that an overabundance of zeal leads many young teachers and supervisors into such an overdoing that it results in a soulless caricature of vitalization. Aimless arm-waving, à la Delsarte, facial contortions, senseless and useless dramatizations, wild markings and drawings and antics generally, are unmusical, unpedagogical, and retard the real progress of work.

As the child grows older, he learns a great vital truth, that there is no joy like that of doing or having done. No possible thrill can be so lasting as that which comes from a consciousness of having accomplished a worthy or beautiful deed. So in music, when the child has had his full quota of rote songs thruout the kindergarten and first and second grades, the rote songs alone pall somewhat, and a new and stronger interest is needed to spur the growing intellect to its best efforts.

Here then must enter the joy of doing for himself. The mastery of the elements of music, learning to use the scale tones to express his own childlike musical thoughts, becoming able to read the printed symbols, are tasks worthy of his highest efforts. In the later years this definite, accurate knowledge of the scale tones, and their endless combinations of rhythm and its various uses enhance the beauty of the songs learned.

When the child has once been really vitalized thru song, it reaches in, and in a real and intimate manner makes him alive to the beauties of music other than song. Our children hear too little of the great music, too much of the ragtime and clap-trap of the comic opera and cheap show. When once they have learned the great things from piano, violin, organ, band, pianola, or graphophone, they are much more critical and less well satisfied with the trash. A really vitalized musical child enjoys a good melodic or harmonious exercise as well as if it had words.

If they have come to really love music for music's sake, they will sit spellbound, as I have seen them do in our recent composers' programs, listening to the works of Mendelssohn, Mozart, Schubert, and Schumann. To vitalize children thru song means more, much more, than giving a few primary songs

with appropriate gestures and animated countenances. That is the foundation, but not the completed structure. There is nothing in our whole school curriculum that is so vitalizing as music in its entirety running thru the whole gamut of child song, larger song, part song, and the great masterpieces of the world's treasure of song, opera, and oratorio.

Vitalize the child thru song? Yes. Use it as one of the greatest forces of the universe to stir up his whole nature and the effect will be carried over into every other branch studied and every avenue of expression.

Realize the importance of making the songs alive with meaning.

Itemize the things really worth while, and then do them well.

Specialize in finding the shortest way of getting the results that are indispensable.

Do not jeopardize the strength of the whole by spending too much time on the frills and pretty things to the exclusion of the really good work that must be done.

Visualize the end in view, the completion of the eighth grade, when you outline the work for the kindergarten.

Fear not being ostracized if you do not happen to follow every vagary and mirage of new things, neither be afraid to fly off, a bird set free, if something is offered better than you have known; only be honest to your own soul. "Prove all things. Hold fast that which is good."

If your field of usefulness is undersized and your best efforts and purposes thwarted by an unappreciative populace, minimize the danger to your future, by permitting some school board to sufficiently subsidize you for a life time at a liberal allowance, with all contingent conditions to your liking.

This do and you will be a suitable candidate for the music-teachers' paradise.

FREE MUSICAL EDUCATION A NECESSITY TO THE MUSIC ART OF A REPUBLIC

FANNY EDGAR THOMAS, REPRESENTATIVE OF THE MUSICAL COURIER, NEW YORK

Outside of public-school music teaching there exists the so-called private school and studio field. In it musical education is in the hands of whoever wishes to hang out a shingle as music teacher. Consequently, there may be found, here a fair one, there one thoroly bad, again one something better, with once in a while a really efficient instructor—by chance—because born so.

All these people, depending for their living upon moneys derived from pupils must have those pupils at all hazards. They obtain them, largely by the methods of hucksters at the market-place—with trumpet and drum, noise and bombast, yelping their wares to attract the passer-by. "This way, come this way, I alone can teach you. All others will take your money and harm you. I am the only one. This way, this way." Naturally, the one with the strongest voice and loudest call, is the most successful—at securing pupils. As to who

is best or worst fitted to instruct in music, there is no indication whatever, from any source.

There can be no continuity in the work of such form of instruction. What one accomplishes the other must throw down. Waste of time and money, damage to gift and spirit, are inevitable results. Moreover, being obliged to keep these pupils in order to live, such teachers must cater to whims and wishes, make things as easy as possible, and keep alive the belief that much is being done, whether so or no. Otherwise pupils will leave that teacher and go to another, and the staff of life, the very bread and butter of the place, ceases to be. Consequently, organization which may prove disagreeable must not be insisted upon. There must be no uninteresting fundamentals, no grading, no obligatory courses, no examination to test result. There is also no supervision. The teacher or director (the interested party) is sole arbiter, iterating and reiterating degrees of advancement in order to seem to give return for moneys received so that others may come. There is no protection for the good teacher, against the insolent assumption of supremacy by the most unqualified "hucksters" in the educational mart. Where there is no fence black sheep have as good right to enter as white ones. There is no fence. Shepherd and flock are at the mercy of human impulse at its worst, in pursuit of commercial prosperity under pressure of competition. Under such pressure all other considerations must become secondary. And so they do, despite the best intentions.

For honesty or dishonesty of those engaged in the work of unauthorized music lesson giving is not called into question here. All are as honest as they can be, some more, some less so, as in all trade. It is the trade condition and circumstance surrounding their work which makes it impossible for them to go forward on straight educational lines.

But worst of all, in this open field, there is no preparation of teachers to do the work. This, the keystone and arch of all education, is absent, impossible. The most ill-advised, illiterate, anti-educational courses are pursued. The work is chaotic. There is no logical division as to features, no system, no plan, no coherence. All is impulsive, haphazard.

That music itself has advanced is not due to this education, so-called, but in spite of it, by momentum of its own power and beauty, by need for it in the human mind, and by importation of features from foreign countries. The time has come, however, when necessity for change in the practice of musical education is apparent to all. Parents are stirred in the matter. All educators are roused in this interest. The very fact of this assembly is proof of this. Well, what of it?

Much. Whence the unprecedented intelligence of this nation? Why did our forefathers find it necessary to interfere with the self-interest and haphazard of private teaching in the early days? Why were they forced to go to the expense of establishing in the country a system of free public instruction, sustained by the nation, controlled, supervised, and protected by the government? Because observation and experience proved to them that such course

was imperative. The same is being now proven in regard to musical education. Teachers of music, as of general education, must be free of pecuniary dependence upon their pupils in order to be in a position to properly educate those pupils.

This is the keynote to the whole musical distress of our nation, gradually growing worse instead of better, and not half realized by those most interested. For, failure in the actual education of music itself is not the only disaster that has come to music in the United States through music speculation. The whole deplorable train of evils in the entire music life of the country follows as a wake to this condition. The Barnumized booming of teaching "speculators," the false and puffing advertisement of good and bad alike in the most open and shameless fashion, misstatements of all kinds through self-interest, the existence of unprincipled people in the management of musical affairs, the thraldom of all effort, however meritorious, if not backed by money, and the unwarranted success of all which is—the whole tide of dishonest and unscrupulous trade speculation in art, are some of the inevitable results of this pernicious system of selling education. Education of any kind must not be sold. It must be free.

HOW CAN FREE MUSICAL EDUCATION BE MANAGED?

France manages free musical education for its people. One of the first acts of the new republic was the establishment of this system, on exactly the same principle as that of our public schools. Music is taught in the public schools there too, as with us. But this other is different and in addition, it is a distinct musical education, sustained by regular taxation, in the interest of national music art.

By this system, now in use for well over one hundred years, music instruction is carried on upon authorized educational lines. This is commenced at nine years of age and is carried to the highest point of musicianliness, to the borders of the creative field. The work is divided into the technical and the artistic or interpretative, the former preceding. It is all graded and examined as in case of our history and geography, save that examination is not in the hands of teachers or directors, but of a jury of twelve of the highest art authorities of the country, who convene for that purpose. Three or four examinations a year bound all activity and any failure to pass any three consecutive examinations constitutes inability to further enjoy the privileges of the institution. For that institution is not seeking pupils to pay its rent, coal, meat, and milk bills, but artists, to augment the art glory of the nation and of the world.

As may be imagined, fundamentals are made imperative. For instance, no study of any instrument, or of song, is permitted till the pupil is master of fluent sight-reading, instrumental and vocal. Also the piano is studied as a library or reservoir from which music may later be learned. Whether one is destined to play cymbal or flute, to be a prima donna, drummer boy, conductor, or teacher, the piano and its literature are first imperative. Theory, accompaniment, ensemble work, vocal and instrumental music, fugue, counterpoint,

composition and the playing of all instruments, including those military, the biography, history, and literature of music and the most fluent sight-reading of manuscript and of print, are taught, also lyric drama, tragedy and comedy, as essential to musical interpretation. Further, creative artists are given travel and study in other countries, and the state sustains institutions of music and acting, in which gifted graduates may be engaged, thus making a complete network of the art system.

But this system does more than educate its artists. It forms further the only and the inevitable means for the nationalizing of music art. When the senator, the milliner, the president, the letter-carrier there, attend an operatic or theatrical performance, he is not there merely to gaze at a newly-imported singer or player, who, like some wild animal, has been captured upon foreign fields and set up in gilded cage to be exhibited at so much a peep; nor yet to see one of his fellows who has had to be sent abroad to have foreign labels gummed upon him, in order that he may perform at home. He is there to enjoy an art structure, interpreted by skilled specialists who are bone of his bone and flesh of his flesh, taught by his efforts and guided into place by the united care and affection of the whole nation. This it is which gives that "art atmosphere" of which we hear so much and know so little. This it is which gives art reverence, feeds correct taste and judgment, brings high standard, critical power, modesty of feeling, and the hunger and thirst for perfection, rather than for the accumulation of material riches. It is not a "certain something occult" in the air, or in the sky of France which makes its people artistic. It is the education their children receive, of which they are all possible partakers, and for which they pay not one single sou.

Here you think: "Why then are our students who go over there to study not better taught than we find them on return." For this reason. Our students who go to Paris to study do not hear of nor see, much less partake of the free musical education. How can that be? On this wise:

Paris being the seat of the Paris Conservatoire, the head of the free system, gained renown as an educational as well as an art center. Thither flocked the private teacher contingent and "music speculator" from all quarters of the world, uniting with such of the home ones as were not occupied with the free work. And thus was commenced the self-established, or paid, or so-called "private studio," outside of all system, independent of supervision or restraint or any sustaining force save such as they "earned" from pupils. Had this field been restricted to the first-class artists who were among them, and to pupils properly prepared to receive advanced coaching, it would have had worthy reason for existence. But alas, such was not so. The field being open there came into it good, bad, and indifferent, with and without knowledge, with and without teaching ability, with and without conscience. But their greatest lack lay in this, that not being educators, their teaching was chaotic and incoherent. They did not know and did not discover necessary educational principles, or if they did they dare not enforce them for reasons sug-

gested above. Into this field then, not the other, do our pupils go for study. And the whole motley gang of our fame and money-seeking studenthood, wholly unprepared, are taken in pell mell to study opera and to become Melbas and de Reskés in a year or two—paid in advance. Thus has the inartistic trend of our people and our private teaching at home been propagated abroad, instead of having been directed, admonished, and shown the way to go by those who should have been their teachers and guides in art.

It must always be recognized and remembered that there are, in all bands and camps and in all countries, exceptions, good people and true, and able and efficient ones as well. But we are not studying exceptions. We are studying principles. Education in music, no more than in any other study, must be left to the hazard of exception, and chance, and defeat. And it shall not be.

WHAT MAY BE DONE ABOUT IT?

It now remains for the real educator who is a musician, and the musician who is a trained educator, to institute a new order of things in music-teaching. It is for such to show by actual result and demonstration what is the failure in such endeavor, why it is, and how to do differently. Such educators are to be found now, and the class is steadily growing in strength and in power—in the public-school music field.

WHAT CAN THE PUBLIC SCHOOLS DO?

Had our people been by nature artistic, as they are intellectually intelligent, they would have instituted a system of free musical education at the same time and as a twin with the free intellectual system. They would have realized at the commencement that such was a necessity of the music art of our nation. Lacking this we have drifted to the third century of our life, without definite organized fashion for education in music. We have done the best in allowing music to occupy a place, the place of an orphan, a foundling, to be sure, but still a place, at the fireside of the nation's public schools. Placed there by faithful musical souls of educational insight, it has there existed, under protest, dependent for sympathy and interest, not to speak of actual sustenance, upon the strenuous personal effort of chance music-lovers in the school field. These have succeeded in keeping her there till now, by her own beauty and by her proven necessity to our civilization, she has conquered for herself a place in the nation's regard second to no other study in the curriculum today. That music may stay in the public schools and become a definite factor in that curriculum is the prayer of all who know what is going on there. Those who do not know cannot conceive of the growth and value of such effort, nor of the influence for good upon, not only our own children, but upon the foreign element pouring into the country. One of the remarkable features of the musical effort in the public schools here is that the system of activity already arrived at, has come almost directly in line with that of the traditions of the French free system in use for over a century. And this without the benefit of tradition, for few of our school music-workers ever even knew that such a system

existed. They have laid their own tracks, hewn their own timber, brought their own steel, iron, and wood, and created a system which now lacks but the unifying influence of organization to make it one of the most practical and advanced in the whole world—up to a certain point.

The public schools must now serve as example in regard to the necessity for educational law governing art study. They must be a corrective influence for the present, fulfill the traditions of the past, and serve as indication for the future of national music art in the country. They must not remain separate from the private or specializing fields. They must teach these fields and bridge the chasm between the two. They must teach these people that altho music is in itself an art, its teaching (up to a certain point) must be according to pedagogic law; that the technical departments or "means" must be separated from the emotional or interpretative "ends" in view. This latter is but little understood in the United States, even in the schools themselves as yet. The old-fashioned idea that because music is "somehow inspirational" it must therefore be taught "somehow inspirationally" has sifted into the conventional, even into the educational thought of the day and become a blight in the progress of music art in our ultra-progressive country. The public schools, being educational and free to dictate principles, must demonstrate away from this fallacy.

Then they can prove that "giving lessons" is not necessarily "teaching," even when accompanied by a big artistic name, or a big fee. They can show up the fruitlessness and loss of time that goes on in the name of lesson-giving. They can show the necessity for fundamentals as a foundation, and for the precedence of foundation to superstructure. They can show that pupils in music may be taught in classes in many essential features, and that it is not necessary to have one pupil in a room alone with a teacher at a fabulous price per half hour in order to learn what thirty pupils may accomplish in half that time. They can show that examination must be there to bound result. They can prove and demonstrate that nine children out of ten may be taught valuable musical instruction which private studio people from the beginning to this hour have denied to them as impossible. They can bring death to the "born, not made" cant.

They can prove that fluent sight-reading, the keeping of time, the sense of rhythm, of phrase, of memory, and other ordinary intelligence, are possible to all normally constituted children, and that the studio epithets of "stupid," "dumb," "idiotic," belong to the teachers, not to the pupils, when result is not forthcoming. They must indicate to parents the crime of an attempt to teach a young man or a young woman an aria who does not know time, tune, language, phrase, and cannot read one strain at sight, or without it. They can show up in garish light the poverty of imparting power of the ordinary "music-teacher" who has not been trained to teach. And so may they prevent as in no other way possible, the self-establishment of people ignorant of the first elements of the music-teacher, and fated to work much disaster to pupils by such ignorance.

But before and above all things else, the public schools must show to the public, the parents, and the nation, that a teacher must be free from pecuniary obligation toward pupils in order to be in a position to properly educate those pupils. This is one of the primal laws of our music art success, and the public must gain its understanding thru the results in the public schools.

But the public schools must not themselves try to do all. The public schools are limited, and must ever be so, by the existence and demands of other studies, by inevitable lack of time, by lack of organization if never so well organized, by lack of artistic education of the best trained music-teachers there employed, and by difference in life and object and gift, of the pupils there assembled. The public school must not even seem to try to do it all. The public must not get the idea that all of musical education ever could be possible under any circumstances, to the public school field. In fact, the great danger in the schools at this present moment is of their falling into that evil of the outside studios, of placing the spectacular before the essential, of pleasing by the superficial, leaving the fundamental half done, of producing attraction instead of knowledge and science, of confounding the means with the end, of mixing the inspirational with the technical, to the extinction of both.

Too much of the expositional—the concert, the recital, padded out by extraneous attraction, carries danger. Even when preparation is carried on outside of school hours, it may be made to distract and weary young children, satiate them of performance before being at all ready for it, make the other education seem more tedious and difficult, while producing but crude and inefficient music result. We have not need of more mediocrity in the country, but of better quality in what is done. Knowledge, science, and power must be made to precede the spectacular. Attraction must be made subsidiary to benefit. Anyone can sing and play and show off. To point right standards, and to properly prepare to study for perfect performance is the province of public-school work.

The public schools are doing marvelous things in regard to musical education. There is not time to commence to enumerate them. Praise and credit have been in some measure accorded them in a series of articles upon the subject printed in the *Musical Courier* for now over one and a half years.

But after all, beyond what the public schools may at best ever be able to perform, the great musical educational endeavor of this nation must come thru the federal government. There must come here, as in France, a distinct free national system of musical education, analagous to that of our public schools themselves, where from A to Z of all that underlies true musicianliness must be laid as a foundation, together with the fitting reverence, taste, perception, and desire to attain, which come only thru the true, real culture.

We must stop top-dressing and get at the depths of values. We must stop grafting and plant seeds. We must stop music trade and commence to exalt true music art. We must stop exhibiting and learn how to live and to love art. We must make our musician's nature at home. We must learn

reverence and standard and desire for perfection, instead of mad race for accumulation of material resource thru an art avenue. And this must all come about thru national music education, established by the government and cared for by the government to this end, for the glory of the government and of the nation and of art, as in France.

Only so may we ever have proper musical education, national musical education, national musicians, national music art. For as the great emperor Napoleon said and publicly decreed:

"A free national system of musical education is a necessity to the music art of a republic. Arise, let us go hence. For the end is not yet."

MUSIC TERMINOLOGY REFORM

CHARLES I. RICE, SUPERVISOR OF MUSIC, WORCESTER, MASS.

It gives me the greatest pleasure to be here today as spokesman, and bring to you this initial message from the newly appointed Committee on Terminology Reform.

I accepted chairmanship of this committee with what I believe to be a full realization that its path is beset with many and great dangers.

Anyone who has observed the teaching of school music in any considerable number of places in this country cannot fail to have remarked the great diversity of statement employed by different teachers regarding the facts which we are engaged in teaching and the equal diversity of terminology used in teaching the symbols by which musicians seek to record these facts. To the teacher of exact sciences our picturesque use of the same term to describe two or more entirely different things never ceases to be a marvel.

Isolated individuals have from time to time raised their voices in protest against the use of this or that term, but this year of grace, 1907, in which the desirability of reform in music terminology is first recognized by such an organization as the National Education Association affords us who are here an opportunity of promoting the early stages of a good work. We can do little more than make a beginning at this session but I am very solicitous that this beginning be made under favorable conditions.

I am sure that this campaign, if carried on with wisdom, will in the course of time work out some reforms which will be to the everlasting advantage of everyone. I say if carried on with wisdom, for it is the easiest thing in the world to get into an argument in which the main issue is lost to sight. It must be apparent also that one, two, or three years will be necessary if the committee is to do anything of value.

We are all apt to be jealous of any attack on our own methods and this is exactly as it should be. I believe no one should be blown about by every shifting wind and I also believe that there is not one person here but what if shown two different ways of saying the same thing, would gladly choose the better. A true statement is just as easily made, just as easily understood, and

just as easily acted upon as a false one and it has this fundamental difference—*it is true* instead of false.

Grove's *Dictionary of Music* says: "A sharp raises the pitch of a note, etc." Is this true? and has a note any pitch? Another music dictionary published in 1905 says of this character: "It raises the pitch of a tone one chromatic semi-tone;" and of the double-sharp: "It raises a note a whole tone." Now is this free and interchangeable use of note and tone evidence of a breadth of belief wide enough to take in both words and say that *note* and *tone* mean the same? I think not. What I do think is this: The definition of the sharp got in because it did not seem quite bad enough to be excluded, but the author, on coming to the double-sharp could not persuade himself to be consistent and say that it "raises a tone a whole tone" and instead of going to the bottom of things and starting right, he side-stepped the whole matter and put another stumbling block in the way of a clear comprehension of the facts. But someone will say: "Nobody teaches it that way," and, I reply that for some years I have been interested in finding out how different people teach these things and that for the past nine months as chairman of the Committee on Terminology Reform, it has been my special business to collect statements from a large number of people scattered all over the United States.

As a result I am convinced that the theory of pitch and pitch representation is erroneously taught to many, many thousands of pupils in the schools of our country, and let me say also that we teach it as well as it is taught in any country under the sun.

This discreditable state of affairs will continue until we who know a better way make ourselves felt with our own fellow-teachers thru institute and convention addresses, and also with the authors of textbooks and dictionaries.

Dr. Calcott was one of the early reformers, for in his *Musical Grammar*, published over one hundred years ago, he says (p. 22, sec. 47):

> The greatest care must be taken not to misunderstand the words *note* and *tone*. A note is the sound which is heard, or the mark that represents it on the staff; but a *tone* is the difference between two *notes*, etc.

After showing how far away he was from present-day ideas, I will point out that he was right on another matter. Speaking of bar, he says: "In common language, the word bar is used improperly for measure." Lowell Mason in the second edition of the *Boston Academy Manual of Music*, published 1836, says (p. 41, sec. 38), "Observe the difference between a *measure* and a *bar*. Do not call a *measure* a *bar*." Opposition to the report of this committee, if any develops, can probably be classified under two heads. There is one class of teachers which believes in inventing new nouns. This we will call the revolutionary party. Another group believes that we should seek for a better understanding and clearer teaching of existing terms. This is the reform party.

To the first class, I would like to say that progress in any line which looks

toward a change in existing conditions is necessarily slow. "You cannot hasten reform by edict any more than you can stay it by jest."

I beg to read you some extracts from an article I wrote early in 1906:

> If disregard for accuracy were confined to any one stratum of the music profession—if public school supervisors, for instance, were the only careless ones in this respect—then the college professors, piano-forte teachers, chorus conductors, teachers of theory, and others might combine to guide the erring brethren into the path of rectitude. It is found, however, that the conductor of a great music festival is just as likely to correct his altos who have sung "G sharp" by saying that they should have sung "G natural," the harmony teacher in college will tell you to "sharp the G in that chord," while the audience at a choral performance, not to be outdone, says: "the high 'notes' of the tenors were flat."

Now there are certain errors so glaring that the offender admits his guilt at once, but says it is too great a tax on the memory to change a lifelong practice. He gets results, so why bother with a new line of statements? His pupils play or sing well and what more can be asked?

We want him to be brought to a better frame of mind so that he will willingly undertake immediate reform in these more apparent violations of accuracy, and thus place himself in a receptive attitude concerning the more subtle distinctions which at first thought may not appear to him to be distinctions at all. The old saw about teaching "old dogs new tricks" is applicable here and it really takes a deal of study and effort to establish one's self in a new view-point.

I am confident that it is only necessary to get people's minds working a bit on the very easy points in order to start an interest which will develop insight to penetrate, and momentum to override, the more obscure and puzzling distinctions which at first are not apparent.

Here is the method pursued in compiling material for this report. A set of fifteen questions was prepared and submitted to each member of the committee and to others. These questions were couched in from two to five different ways and each person was asked to indicate the best form by canceling all others. The report of the committee will contain no recommendation which has not met the approval of four-fifths of the people who replied to the questionnaire. In considering this report, it seems to me that the points which have met the approval of four out of five thoughtful people who have taken time to apply their minds to the matter in hand ought to be disposed of rapidly and with little argument. When they are settled, I can assure any argumentative brother or sister that I have plenty of material in reserve for discussion.

Just one word now to save time later; some one will say: "These statements and recommendations of yours are so simple as to appear ridiculous and therefore my self-respect will not allow me to vote for them." To such an one I can say that the committee, from its experience as a committee, is better qualified to know with regard to prevalent usage than any individual can possibly be. In registering an affirmative vote on any point the individual does not acknowledge himself an offender but taking the word of the committee that there are offenders somewhere in the broad land, he simply throws his influence toward the abatement of the offense. It may appear entirely unnecessary to him

in his own practice, but I can assure you that every point has been well considered.

Thoughtful men and women will become impressed with the untruthfulness of certain statements and little by little change their practice. Others will follow, influenced by example. The revolutionists will deride us for not moving faster while the conservatives will be suspicious of any change.

And so, for the music terminology reform, I predict that it will spread, never swiftly enough perhaps or in such channels as to pacify revolutionists, laughed at in all probability by the thoughtless, but like the spelling reform, not materially retarded by any of its opponents.

It is in the air. Will you not help to get the air in motion so that it will be made effective?

DISCUSSION

After some discussion following Mr. Rice's paper, the following points were formulated and a motion made for their adoption:

I

We should seek for a better understanding and teaching of existing terms rather than the invention of new ones.

II

Tone, as a distinctive term for musical effects, is better than sound.

III

Tone, as distinguished from note: "The high tones of the violin were both strong and pure."

IV

Tone, as distinguished from interval: "The fifth tone of the major scale."

V

Bar, a visible symbol as distinguished from measure: "I heard only the last few measures of the symphony."

VI

Scale as distinguished from key: "America is written in the key of G."

VII

A sharp or a flat does not raise or lower:

(1) A given note; (2) A given tone; (3) A given pitch; (4) A given staff-degree. For example: (1) "The fourth quarter-note is raised by the accidental sharp;" (2) "The third tone of the major scale is lowered by a flat," (3) "The pitch F is raised by a sharp in the key of G;" (4) "The third line is lowered by a flat in the key of F," are each and all incorrect.

VIII

There are no pitches named "B natural," "A natural," "C natural," etc.

IX

Any and all of the following: Tone, semi-tone, whole tone, half-tone, are incorrectly used as terms of interval measurement.

X

The chromatic scale is a progression upward or downward from a given tone to its octave by half steps.

XI

Chromatic is a term of ear. The characters: sharps, flats, naturals, double-sharps, double-flats, when used away from the signature-place, are not properly called chromatics.

XII

Among teachers the following is not uncommon: "I first let the pupils sing it thru by note" (meaning the sol-fa syllables). Syllable is the correct term in this connection.

XIII

"The unaccompanied chorus ended a half-step flat."

The entire list was agreed to, and all but the fourth and thirteenth received the unanimous indorsement of the department.

DEPARTMENT OF BUSINESS EDUCATION

SECRETARY'S MINUTES

FIRST SESSION.—TUESDAY MORNING, JULY 9, 1907

The department met in Alhambra Hall, Los Angeles, at 9:30 A. M. and was called to order by President H. M. Rowe, Baltimore, Md.

President Rowe delivered the President's address on "Courses of Study and Preparation of Teachers for Commercial Schools."

Professor James Ferguson presented a paper on "Present Standards of Commercial Instruction with Present Requirements for Commercial Teachers."

The next topic, "Available Means and Additional Means Required for the Preparation of Commercial Teachers" was discussed by H. B. Brown, of Valparaiso University, Valparaiso, Ind.

The last paper, "Ways of Improving Commercial Teachers Now at Work," was presented by F. C. Weber, Polytechnical High School, Los Angeles, California.

These papers were discussed by E. K. Isaacs, president of Woodbury Business College, Los Angeles, Cal.

The President appointed the following committees:

ON NOMINATIONS

F. F. Showers, of Wisconsin. W. E. Gibson, of California.
Thos. H. H. Knight, of Massachusetts.

ON RESOLUTIONS

James S. Curry, of Ohio. H. B. Brown, of Indiana.
James Ferguson, of California.

Department adjourned until Wednesday morning.

SECOND SESSION.—WEDNESDAY MORNING, JULY 10

The meeting was called to order by President H. M. Rowe.

The topic, "Necessary Adaptation of General Practice in Teaching the Commercial Branches in High Schools," was discussed by H. B. Brown, of Indiana; F. C. Weber, of California; and H. M. Rowe, of Maryland.

"Co-ordination of Individual and Class Instruction in Commercial Branches," was the subject of a paper by F. F. Showers, of Stevens Point, Wisconsin. The paper was discussed by Thos. H. H. Knight, junior master of Girls High School, Boston, Mass.

"The Relation Between General and Commercial Education," was presented by J. M. Green, principal of State Normal School, Trenton, N. J. The paper was discussed by J. H. Francis, principal of Polytechnical High School, Los Angeles, California.

Committee on Nominations reported the following:

For *President*—H. B. Brown, president of Valparaiso University, Valparaiso, Indiana.
For *Vice-President*—James Ferguson, head of department of commerce, Mission High School, San Francisco, California.
For *Secretary*—James S. Curry, teacher of commercial department, High School, Cleveland, Ohio.

On motion, the report of the committee was adopted and the nominees were declared elected as officers of the department for the ensuing year.

Committee on Resolutions reported, in addition resolutions of thanks to the retiring president and secretary, and the local committee, the following:

Resolved, That as members of this department we will renew our efforts to the end that the effectiveness of its work shall be increased and its influence more definitely felt in the educational world.

Resolved, That we heartily indorse the position taken by the Leland Stanford Junior University and other institutions of higher education in recognizing the value of commercial studies by placing them on the accedited list.

Respectfully submitted,

JAMES S. CURRY.
H. B. BROWN.
JAMES FERGUSON.

On motion the resolutions were adopted by a unanimous vote.

The department then adjourned.

F. F. SHOWERS, *Secretary*.

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

COURSES OF STUDY AND PREPARATION OF TEACHERS FOR COMMERCIAL SCHOOLS

H. M. ROWE, AUTHOR AND PUBLISHER OF COMMERCIAL TEXTS, BALTIMORE, MD.

The Business Educators Association, which was organized in New York in 1878, became the Department of Business Education of the National Educational Association at the Saratoga meeting in 1892, and held its first meeting in 1894 at Asbury Park, N. J. At that time its members were mostly teachers in the private commercial schools. Of the original members who came in with the Business Educators Association only a few have since remained continuously active in the department, one of whom, I believe, is Mr. Springer and another is your president.

Some of the achievements of this department are distinctive and notable. Almost continuously since its organization the policy has been followed of taking up the investigation and discussion of such subjects as would provide substantial additions to the available fund of authoritative information pertaining to commercial courses and commercial instruction.

In pursuance of this policy, at the Denver meeting in 1895 a committee was appointed to prepare a suggestive outline of business-college studies. This committee reported thru its chairman, J. M. Mehan, president of Capital City Commercial College, Des Moines, Ia., at the Buffalo meeting in July 1896. The committee was continued and again reported at Milwaukee in 1897, when it was instructed to put its report in shape for publication by the United States Commissioner of Education, who, I believe, published it the following year.

This report was a very useful contribution to the literature of commercial education in the private schools at that time, and, indeed, has since been practi-

cally the standard for courses of study in these schools. The report is published substantially as it appeared in its final form in the National Educational Association report of 1896. While the proceedings of a number of the meetings of the Business Educators Association had been published prior to its becoming a department of the National Educational Association, this report may justly be designated as the first well-considered and authoritative expression of what should constitute a good course of study for commercial schools, and more especially the private schools.

At the Detroit meeting in 1901, upon resolution, a committee of nine was appointed to prepare a monograph on the subject, "Commercial Education in High Schools." D. W. Springer, director of business department, High School, Ann Arbor, Mich., was chairman of that committee. It made a preliminary report, outlining a course of study, at the Minneapolis meeting in 1902. The committee was continued and reported again at the Boston meeting in 1903, at which time the final report of the committee was accepted and was printed as *Bulletin No. 23* of the University of the State of New York. I have been informed that several thousand copies of this bulletin have been sold, and there is yet an active demand for it.

This monograph on commercial education in high schools must be classed as the second notable achievement of this department. It aroused much interest, considerable discussion, and some criticism. Like most reports of its kind, it did not represent precisely the views of any one of the members of the Committee of Nine. It was intended to be suggestive rather than final, as it was recognized by the committee very early in its deliberations that no course of study could be laid down that would meet all requirements under the varying conditions found in the secondary schools. While it took advanced ground, its general standards and provisions have never been seriously questioned.

Both of these reports have been very helpful in giving definite shape and form to commercial courses in the public and private schools. They were thoroly discussed and criticised in this department, before their publication. These various expressions of opinion from as many sources were useful to the committees in their deliberations.

At the Asbury Park meeting in 1905 it was decided that inasmuch as courses of study for both the public and private schools had been fully considered, the next logical topic for consideration should be the preparation and improvement of commercial teachers, with the result that the following resolution was adopted:

> *Resolved*, That Cheesman A. Herrick, W. A. Scott, I. O. Crissy, and H. M. Rowe be appointed a committee, with power to add to their number as they may desire, for the purpose of considering the question of "The Preparation of Commerical Teachers."

The chairman, Dr. Herrick, has suggested the following working-plan for the monograph, which it is the intention of this committee to prepare:

THE PREPARATION OF COMMERCIAL TEACHERS

1. *Introductory*—Importance of the subject and plan of this monograph, by Cheesman A. Herrick, Central High School, Philadelphia.

2. *Standards for commercial teachers*—Present and ideal; comparison with standards for other teachers, etc., by Durand W. Springer, high school, Ann Arbor, Mich.

3. *Remuneration for commercial teachers*—Present, comparison with remuneration 'for other teachers and suggestions for change, by I. O. Crissy, regents' office Albany.

4. *Ways of improving commercial teachers already at work*—Summer schools, correspondence courses, teachers' associations, professional journals, etc., by H. M. Rowe, Baltimore, Md.

5. *Higher schools of commerce to train in the subject-matter of commercial branches*, by James T. Young, University of Pennsylvania, Philadelphia.

6. *Possibilities of normal schools in the preparation of commercial teachers*, by H. B. Brown, Valparaiso University, Valparaiso, Ind.

7. *University schools of education as a means of preparing commercial teachers*, by George F. James, University of Minnesota, Minneapolis, Minn.

8. *Methods of preparing commercial teachers in Germany and France*, by Professor Charles DeGarmo, Cornell University, Ithaca, N. Y.

Several of the subdivisions of the topic, you will observe, are included for discussion in our program with the purpose of securing expressions of opinion and criticisms for the future consideration of the committee, which I presume will be known as the Committee on Commercial Teachers.

In the suggested plan for the preparation of the monograph, I have been assigned to prepare that part of it which deals with "Ways of Improving Commercial Teachers Already at Work." Therefore, instead of any special president's address, I shall refer briefly to a few points which must be considered in connection with my assignment, although Mr. Weber in today's program will present the main discussion on the subject.

The history of the development of commercial and industrial education in our country is unique and in many respects is different from the history of any other special group of studies arranged for a special purpose.

Training for business pursuits was necessary with us because, for some reason, in the early days our people did not take kindly to the apprenticeship system, which is still in vogue to some extent in foreign countries. There was a scarcity of bookkeepers and clerks, and thus it came about that schools of bookkeeping and penmanship were opened where young men were taught the rudiments of these branches. After a while commercial schools of this description began to spring up at various points and it was not long before a large number of them had been established with some additional branches included in their courses of study.

Teachers in these schools were selected mostly from the young men who attended them, and who were usually of limited education. Many of them had been country-school teachers, and, indeed, it is from this source principally that the teachers of these schools have been recruited ever since—earnest, energetic, conscientious men in many instances, capable of doing their work

well, but too often without the general education and training necessary, to render the best service.

When the commercial branches began to be introduced in the high schools, these schools naturally attracted many of the better class of teachers from the private schools; but there has always been a scarcity of well-qualified teachers.

This fairly places before us the conditions with which we now have to contend. There are some six hundred thousand pupils in the United States in attendance at the public and private schools who are receiving instruction in the commercial branches. Over one-half of these are in the private schools. The private schools employ some five to seven thousand teachers, and in the public schools about an equal number teach one or more of the commercial branches. Thus, we have from ten to fourteen thousand men and women now teaching who, with few exceptions, were not trained as commercial teachers, and who, upon the basis of qualifications necessary in other departments of teaching, must be classed as poorly prepared. Most of these men and women are matured and settled in life. It is impossible for them, even if they so desired, to pursue a regular course of study and training in residence at school. The most they can do is to improve themselves incidentally in connection with their regular employment in such ways as opportunity offers.

What can be done to help these people? That they require help and that it is necessary that something should be done for them, or that they should do something for themselves, if the standards of attainment for our commercial teachers are to be raised, is beyond question. Other agencies and means will take care of the coming generations of teachers, but what shall we do for those now teaching who will continue with us until they shall cease their labors?

The very first obstacle to overcome is the lack of interest on the part of these teachers themselves. Very few of us are willing to admit that there is room for our improvement as teachers. Again, it is human nature to become lazy once we are settled in a position which does not seem to require any special effort to retain. Teachers will not improve themselves until they find that it is necessary for them to do so in order to hold their positions or to advance to better ones.

The first step, therefore, is to create a demand for better commercial teachers and it rests with their employers, the owners of private schools, and the members of boards of education to create it. The demand created (and to some extent it is already here), how shall teachers proceed to improve themselves without giving up their positions, without any serious interference with their domestic arrangements, and at a cost that will come within their reach?

My assigned topic suggests four ways: summer schools, correspondence courses, teachers' associations, and professional journals. Of the four, the first two are by far the most important. Summer schools, conducted in desirable localities where living expenses are low, provide not only the opportunity for good work in courses of study that may be designed to meet the special

requirements of teachers now employed, but they will also provide pleasant outings and summer vacations for the teachers and their families.

The correspondence method of instruction is no longer an experiment and it has been demonstrated that such instruction may be very successfully continued thru an entire course of study. There is no reason why a correspondence course in connection with a summer school, might not be provided that would fully meet the requirements of the situation.

Passing for a moment outside of the limits I have fixed for my remarks, I will say that this was one of the reasons for the organization of the American Commercial Schools Institution. It has for one of its purposes the maintaining of a four-years' course of training for commercial teachers, which may be pursued entirely at home without the loss of a single day from the schoolroom, and without burdensome requirements of time and application. It is intended that this course shall be continued and supplemented in annual summer schools where the teacher may devote from six to eight weeks in residence attendance upon the classes, quizzes, and examinations in the various groups which constitute the course.

It is not my purpose to enter into this course of study at all, further than to say that it has already been inaugurated and successfully carried out with a few students, largely to test its practicability and possibilities. But little active work is being done in that course at this time. I refer to it only to show that to this extent the machinery for the carrying on of work in the summer schools and thru correspondence courses is now in readiness.

But the trustees of the American Institution have discovered that this four-year graduate course of study does not meet the requirements of the ordinary commercial teacher already at work. With few exceptions, he is not willing to consider a graduate course which, in some instances, might require from six to eight years to complete, even if he is offered the inducements of a degree and a great improvement in his prospects. A different attitude could hardly be expected from those who have arrived at middle age or have passed beyond the thirty-year mark. Something not so formidable must be provided for them if it is to be considered.

It should not be difficult to arrange courses extending thru two or three sessions of a summer school, with some supplementary correspondence work for which an appropriate certificate might be issued that would be acceptable to many of these teachers. I am convinced that it will be thru some such arrangement as this that any substantial improvement in the abilities of teachers now employed will be brought about, if it is brought about at all.

I have endeavored thus to briefly open up the whole question that is to be covered in the work of the Committee on Commercial Teachers, and I have intended in my remarks to set the matter before you so that you might intelligently understand the general purpose and plan of our program, as well as the discussions and criticisms which will doubtless follow in the various meetings of this department until the final report of this Committee is

made. The better preparation of commercial teachers is a vital question, and I hope it will receive your very earnest consideration.

PRESENT STANDARDS OF COMMERCIAL INSTRUCTION

JAMES FERGUSON, DEPARTMENT OF COMMERCE, MISSION HIGH SCHOOL, SAN FRANCISCO

To fit a pupil in the shortest possible time to earn a living was the first standard set up in commercial instruction. "Learning for learning's sake" did not enter into the consideration at all. Boys and girls were prepared for positions in the business world and they filled these positions to the satisfaction of their employers. The general public recognized the value of the work and made a greater demand for it. But it was not universally realized that teachers were required who were peculiarly adapted to meeting a practical problem in a practical way. Anyone was considered fit by the uninitiated to be a commercial teacher. Now it is realized that this task is worthy of the best efforts of the best teachers in our country. Institutions which prepare boys and girls to make an honest living are recognized as worthy of praise, and the founders of this system of education are no longer called upon to offer apologies.

The universities were the most skeptical regarding the merits of commercial instruction. But they are beginning to recognize its merits, not only in the method of instruction but also in the subject-matter. Already it is being placed upon an equality with Latin and Greek as entrance subjects, as in the case of Stanford University. To my mind this is one of the greatest steps in advance that has been made in education in the past decade. It means that we are becoming more strongly committed to the American ideal in education, that any training which adds to a man's efficiency as an economic factor in society is worthy of a place in our educational system. While our English friends hold to the idea that education is for those who do not have to work, and in reality is a passport into the leisure class, we are becoming more and more committed to the principle that education should better fit a man to work, and places upon him the responsibility to do something useful for society.

This enlarged recognition will undoubtedly make commercial work more comprehensive. It will show the need of a broader foundation for the students of commerce, and, by making possible more thoro work, will result in qualifying a larger number of boys and girls for the higher positions in the business world.

But what is the goal toward which we ought now to aim in commercial instruction? Someone has said that men should be so educated that they will enjoy their leisure hours. Very true. But the task which is pressing upon the majority is how to get the leisure hours. They are completely absorbed in the problem of making a living. Our aim ought to be to help make more efficient members of society, and to do this we must first be sure that we are

going to prepare young men and women to do some useful thing. It may sound well to say that it is more important to make men than to make breadwinners, but the statement is dangerously fallacious in its inferences. The making of men includes the making of breadwinners, and learning to make a living will help to develop manhood. The two are inseparably linked together. An inefficient breadwinner is not an ideal man no matter what his other attainments may be. The highest type of manhood is among those who received this broader training and are putting it to practical use—the men who make two blades of grass grow where there was but one before, in contrast with those who are satisfied to eat up the single blades that they may chance to find.

Now this does not mean that we must exclude from the curriculum everything but the trades and arts. On the contrary, it means that we shall give a boy the opportunity to be educated in heart and in mind as well as in hand so that he may be a good citizen and be able to contribute to the welfare of society. His interest may demand science, and foreign languages, and art, and commerce, as a necessary part of his training. And he should be given them, not simply because they have been for a long time or for a short time a part of the school curriculum, but because they meet the needs of the individual pupil. With this preparation he will be a man and a breadwinner, with leisure hours and intelligence to enjoy them.

Sometimes we find that the interests of subjects are placed above the interests of the pupil. This should never be done. There is but one unpardonable sin in the educational world—unpardonable both by God and man—wasting the time of a boy or girl in school. This is done when pupils are made to study subjects that are not suited to their individual needs, tho it may also be done by giving poor instruction in the subjects suited to him. The boy who has been neglected during his early years must go thru life at a great disadvantage, handicapped in the race. He has been sinned against, and there is no pardon for the offender. Let the standard be "efficiency for the child," not in a narrow sense but in the broadest sense possible, without regard to whether our cherished educational traditions shall live or die. "Education for education's sake" must give place to the more comprehensive motto, "education for the child's sake." And this should go forth as a cry with such volume from this Los Angeles meeting that it will be heard to echo from every schoolhouse in our country.

AVAILABLE MEANS AND ADDITIONAL MEANS REQUIRED FOR THE PREPARATION OF COMMERCIAL TEACHERS

H. B. BROWN, PRESIDENT OF VALPARAISO UNIVERSITY, VALPARAISO, IND.

The subject under discussion, is one that is thoroly up to date. It has been but a few years since there was any discussion upon this

subject, and but recently the department of business education has become a factor of the National Educational Association. So that when we look for the "available means" for preparing teachers to take charge of schools of commerce, or to give instruction in the same, the horizon is quite limited indeed.

It has not been long since the going away from home to school was the equivalent of bidding farewell forever to commercial pursuits, to farm and trades. Nothing but some one of the professions was in view. The false notion was entertained that by means of an education, and that followed by one of the professions, the young man would become prominent in the affairs of the world and wealth would flow into his hands. To such an extent did this idea prevail that no little of the encouragement given by parents to children to attend school was that they might make a living without working so hard; and no sacrifice was too great on the part of parents that children might complete a course of study.

Young people being thus educated without any of the responsibilty of providing funds, necessarily came out of school feeling that they could secure a competency without work. Thus the very purpose of the parent and the school was thwarted. This principle prevailed to such an extent that the changing conditions in the various departments of life were overlooked.

The commercial world outgrew the preparation that had been made for it and when people were at last roused to its magnitude the question of how to meet the conditions was of such proportion that few had the courage to undertake it. Business departments sprang up on every hand and did much toward alleviating the pressing demands. The difficulty to be overcome was in educating young people to understand that commercial work, or work on the farm, or in the shop, is equally honorable with that of the so-called professions.

But great emergencies develop ability, and after many years the commercial departments grew into elementary schools of commerce. These continued to expand until now there are many great institutions of commerce which have as a fundamental part of their work the training of young people so that they may be able to meet the changed conditions of the commercial world. While as yet the number of these schools is not great, there are enough to establish beyond question their absolute need. The government has done much to encourage these by establishing a Department of Commerce at Washington. This affords one of the best "available means" for studying the conditions to be met by schools of commerce. Then there are the advantages of the great business concerns in our large cities; of transportation by land and sea; of commerce, national and international; of combinations of labor and combinations of money, etc. In addition to these are the excellent schools of commerce that are established in our public schools. These have done much toward meeting the demand for a higher training in commercial work. Add to these the departments of commerce in some of our universities, and there is much to encourage those who have for years been struggling to meet the needs of young people. The Wharton School, founded in 1881, associated

with the University of Pennsylvania, was the first school of much importance (backed by state recognition) to young people desiring a commercial education. But it was fully twenty years after this before the department received anything like just recognition. This school was followed by departments in other universities. Notably among these are the Universities of California, Michigan, Dartmouth College, New York, Wisconsin, Illinois, Ohio, Chicago, Indiana, and others.

Many of these have been given such authority as to enable them to confer the degree of Bachelor of Science, leading to the degree of Master of Arts, upon completing the full commercial course.

We may also add to these the advantages of the schools in foreign countries. Many of these countries have erected and equipped buildings and are supporting the schools at public expense. Even in Russia there are more than forty commercial schools which are under the direct control of the master of finance. These schools in some instances are supported by the merchants of the cities in which they are located, others by tuition, but many of them by direct government aid. The instructors are regarded as being in the service of the state and have certain governmental rights.

In the school at Tiflis there are more than forty instructors, and these being employed by the government give to the school a recognition which could not be had in any other way. Germany, seeing her best people scattering to all parts of the world, decided that proper attention be given to her young men by preparing them for commercial life, hence she established technical schools. These were placed under the direct supervision of the government and considered a part of the educational system of the country. The prestige thus gained has given their conduct international reputation. The same qualifications are required to enter these schools as are exacted to enter any other department of a university. It also gives social standing, which heretofore has been a serious handicap among business men. These schools have done much to elevate the standard of international ethics, which the marvelous growth of the country has made necessary.

In Japan the schools at Tokio, Kobe, and other places deserve much credit for the thoro business conduct of the affairs of the empire. The first school of Japan was like unto the splendid private schools of our country, but it was looked upon with disfavor by the government because it was feared that young men might be trained away from Japanese interests. But when these graduates took their places in the commercial world the value of their education was seen and the emperor was among the first to suggest increasing, at public expense, the facilities of such schools.

France was among the first to detect the commercial value of schools for the training of young men for business pursuits. Switzerland, like many of the other countries, began early to establish schools of commerce. Notable among these is the commercial school of the city Neunberg, the commercial school of St. Gall, the commercial school of Zurich, the central commercial

college of Bellinzona. There are twenty-seven of these schools, and while there is much room for improvement, yet the country is rapidly solving the problem of the commercial schools. What is true of these schools is true of the schools of many of the other countries of Europe. England perhaps is more backward than any other of the great nations.

These schools of commerce are in reality miniature worlds—eminences, if you please, on which, thru the instructors, the boys and girls are permitted to have a comprehensive view of not one nation only but of every nation of the earth; places from which the commerce of the world may be seen, where not only a knowledge of literature and the sciences may be obtained, but where the products, the means of transportation, the geographical location, the character of the people, effects of labor and capital, may come within the knowledge of the student. While all of these afford available means for excellent preparation, there are yet additional requirements that seem essential.

The preparation necessary for engaging in the work of the various professions has, within the past few years, increased to such a degree that extending the courses of the schools of commerce seems absolutely necessary. During the last year the legislature in my own state raised the qualifications of the teacher so that before he can teach in even a country school he must have completed a course in a commissioned high school or its equivalent, and must in addition to that have one year of normal training in some special school for teachers. To obtain the lowest grade of certificate he must be a graduate of a commissioned, or certified non-commissioned, high school, or have equivalent scholarship, and at least twelve weeks in an accredited normal school. To hold a three-years' license he must be a graduate of a commissioned high school or its equivalent, have three years' successful experience as a teacher and be a graduate of a professional school for the training of teachers.

Now if all this is necessary for the teacher of the public schools, what shall be the requirements of a teacher for the schools of commerce, where young men and women are to be trained to take charge of the great business concerns of the country? What shall be the additional requirements?

I am not speaking of the requirements without which no one would undertake to teach in a school of commerce, such as a knowledge of the science of accounts both theoretical and practical, of commercial arithmetic, commercial geography, commercial law, history of commerce, international law, a knowledge of the laws of one's own country, of their administration, etc. Beyond these, what should be the requirements? I believe everyone will agree with me that no matter what the requirements may have been formerly, the present requirements (beyond the ordinary preparation) call for at least a college education, a thoro knowledge of mathematics, sciences, literature, language. Because that which has ostracized the business world from the professional world has been the belief that the preparation given in the commercial schools has not given the social standing. It has not been admitted that commercial studies are cultural studies. The teacher in the commercial schools must prove

his own ability and the ability of the students under him that a commercial education is deserving of as high recognition as an education in any of the professions; and that the studies pursued tend to train the mind and give as broad culture as the study of law, medicine, etc. He should be familiar with the fields of work which the student must occupy. Two of these, the most fruitful for some years to come, are the farm and the shop. I would therefore make a special plea that the teacher of commerce be thoroly familiar with agriculture and manual training, because the prosperity of a nation depends largely upon its agricultural resources; and as we are seeking the welfare and happiness of all the people it is of the greatest importance that everything that the arts and sciences and society can bring to the people in any location be brought to the family of the farmer.

Dr. Harris in one of his reports says, "Not more than 3 per cent. of all educated young people can find places in the professions." It must be admitted that almost the whole trend of education as it is now offered is toward these professions. What shall be done with the 97 per cent.? They must find employment in manual labor, for which little provision has been made.

Many a boy or a girl, who sees no beauty or utility or culture in declensions, conjugations, translations, and the extracting of roots, who may be a real drone in the class, might, if the opportunity were afforded him, enter elementary work in agriculture and manual training, and prove himself a genius. His sensibilities aroused, he would realize the necessity of extending his course of study, would turn to the university, and would complete his work.

There has never been a time when there has seemed to be such a necessity for teachers in all kinds of schools to lay formalism aside, as now. Teachers so frequently feel that their position is not one of business, but a profession; not in the sense in which a profession is usually understood, but a fancied notion of it, which prevents them from entering into and becoming factors in the great business world. This results sometimes from a fear on the part of the teacher that his views will not please everyone, and that he may not be able to hold his position. Better lose it than be a mere satellite. Teachers must be men and women of ideas, because the business world needs such. These however, cannot be obtained without broad culture. Recently I was visiting a newly equipped printing establishment where one of the great papers is published. As I passed from department to department and saw the mighty machinery at work and the army of people hurrying here and there, bringing news from all parts of the world, I was forcibly impressed with a brief conversation between our guide and the foreman of one of the departments. The guide said, "Where is Conway?" "Gone," said the foreman. "What was the cause?" asked the guide. "No ideas," said the foreman; "Conway was a good fellow and an excellent workman, but he had no ideas and we could not afford to pay for a man without ideas."

Teachers must be men and women who are not afraid to enter into the business interests and share the burdens of the community. They must be

known as workers, not merely in the "teacher's sense," but as energetic, enthusiastic forces thoroly imbued with the idea that work, incessant work, is the price of success. "He who saves his life will lose it, and he who loses his life will save it." Teachers must constantly keep growing, because the business methods of ten years ago are not the business methods of today, any more than the textbooks of ten years ago are the textbooks of today.

The world awaits men who are not one-sided, but those who can look intelligently upon both sides of any question, who have a higher notion of the business world than to believe that because one man has accumulated money is *prima facie* evidence that he is dishonest, or because another has failed is the best reason why he should be called honest. At the present time there seems to be an inclination, even among men of affairs, to try to advance their interests by minimizing the worth of men who have exercised their natural ability and good judgment and have established great industries. In the commercial world some men cannot help succeeding. If the cause, however, were sought it would be found that their success was not the result of mere luck, but that it was the reward of eternal vigilance.

Every effort of young people should be directed toward building up rather than tearing down. They must be willing to share their ability, even to the extent of helping those who do not know their places to find them. So many do not know the particular work for which they are naturally adapted. They may be thoroly honest and willing but may not have the ability to select the work in which they should engage. Why not train business men to be willing to try such people in different kinds of work until they find their places, because every person can do some work better than any other person. In this way specialists will be secured and useful lives saved and made happy.

The world awaits men who are willing and anxious to do something, men who are honest; and by honesty I do not mean a person who will not take money from the till. What I do mean, however, is best expressed by an experienced business man:

> Employers want men who combine with ambition and natural talents honesty and the capacity for hard work. The employees whose dishonesty is the most costly are those who would never take a cent from the till, but who defraud their employers by thefts of time, thru half-hearted effort, or thru placing their own interests above those of the firm. Honesty means more than financial integrity. It is the quality which makes men work without watching the clock, or being afraid that they will give their employer more than they are paid for.

The honest employee brings to his work the best effort of which he is capable, and begrudges nothing when the interests of his employer are at stake.

Then there should be a state governing board for the schools of commerce. This should be composed of men who have made their mark not alone in the business world but in the literary world as well. It should be the duty of this board to fix the qualifications of the commercial teacher and the requirements necessary for the completion of a course of study. It might be urged that the state board of education would be sufficient for this. I think not.

The state board of education is composed of men of literary attainments only. Very few, if any, have had extensive business experience. Their work has been almost wholly in another direction. With this state board of control, and the other requirements mentioned, the schools of commerce would be placed on an equal footing and receive the same recognition as the other educational and industrial departments of the state.

METHODS OF IMPROVING COMMERCIAL TEACHERS NOW AT WORK

F. C. WEBER, POLYTECHNIC HIGH SCHOOL, LOS ANGELES, CAL.

Our president has ably shown us the conditions and objects of this discussion. Probably none of our commercial teachers are so perfect that they need not improve. In fact, if we do not improve, we are very likely to retrograde. However, in my limited personal acquaintance with teachers of commercial branches in high schools, I think I can safely say that I have found a large majority of them to have had considerable general educational advantages, and a large percentage are college and university graduates. Undoubtedly many of these have not had training which was especially designed to prepare them for teaching commercial subjects. Let us bear in mind that the teaching of commercial subjects in public schools is not yet of long standing and the opportunities of studying these lines of work in universities, colleges, and higher institutions of learning generally, is of still shorter duration. The private commercial schools have not to any great extent offered advanced work in the preparation for teaching, for it has been their function to prepare for entrance upon business positions and not for instruction in commercial subjects.

Four ways of improvement have been brought out in the previous discussion of this subject. I wish to say a few words concerning each of these, and to add a fifth, which, to my mind, is more valuable than these. First, however, permit me to say that I do not want to be undertsood as being opposed to study in institutions of learning as a means of improving commercial teachers now at work. I most heartily believe in college and university study but I do not believe they are all sufficient for the commercial teacher.

Summer schools.—While much good work can be done in summer schools, their handicaps lie in the brevity of the term, the work coming just after the close of the school year, when the teacher is tired and has no taste for schoolwork, and in the expense of attendance, which uses the teacher's time and his money, the latter of which is generally not too abundant. Courses of study in summer schools for the development of the deficient commercial teachers are not very common and are now largely in the experimental stage.

Correspondence courses.—The correspondence course is of real value but it lacks the inspiration of the class, the recitation, and the flesh-and-blood instructor. Few will carry such a course to a successful issue. Little things, such as social obligations, extra schoolwork, sickness of self or friends or family,

will cause the time for work on the correspondence course to be postponed, first occasionally, soon it is somewhat more frequent, then a busy week will crowd it entirely into another week, and so on until it is dropped entirely. Of course, such should not be the case, but such is human nature. The American Commercial Schools Institution has been mentioned as offering courses by correspondence. May I ask what inducement to persevere it offers to the teachers pursuing its courses? Undoubtedly it will give the student of its courses self-improvement, but can he capitalize this self-improvement? Will its certificate of graduation be accepted by county or state boards of education as a sufficient credential for the issuing of the teacher's license? Are the merits of its courses so generally recognized that the graduate will be reasonably sure of a better position and better pay? If these questions can be answered in the affirmative, very likely the classes will be large enough to warrant the continuance of the work even if the course requires four or more years. These questions must be met by any successful correspondence course, for people who are working for a living and are thoroly busy are not likely to give their time and energy to work that has no definite and tangible result at its end.

Teachers' associations.—The chief objection to teachers' associations is that they are made up entirely of teachers. Thus the teachers who are preparing pupils for commercial life do not have that life in their own midst. Teachers' associations are too often mutual admiration societies in which the great responsibility and dignity of the profession are aired, rather than a laboratory for searching out the elements of life and the manner of combining these elements in a twentieth-century business man and citizen. For these reasons, many teachers are unwilling to participate in teachers' associations. They find them dry, uninteresting, and expensive, and fail to get from them that which will materially strengthen their work. They attend because they are expected to, not because they are interested. How much progress does that boy make in your recitation who is not interested in what you are trying to teach him?

Educational journals.—Many good things are published in educational journals. Many teachers have not the time to search out the good from the bad. Much of the matter in these journals is not definite enough, is not interesting, too often in commercial lines it is the expounding of a publisher's or author's pet theory, or the veiled advertisement of some system or text.

The laboratory.—We all wish to improve, but if improvement is to be economic yet efficient, we must first of all know where the improvement is needed. Let the teacher of commercial branches who wants to improve—or require it of the one who needs improvement—take a position in the commercial world as a stenographer, bookkeeper, or clerk, or better still, try his hand at each of these in turn. Let him try it with different firms and corporations in different lines of business. I assure you that he will find out where he needs improvement. He will get the improvement, too, for business men have a peculiar way of getting results in their employees which instructors in the classroom and correspondence school have not. Is the teacher's work acceptable in the

commercial world? If it is not, he is not fit to teach it in the schoolroom. Will the teacher return to the schoolroom after an excursion into the commercial work? If the state cannot make it attractive enough for him to do so, then the state does not deserve his services. The teacher can do this largely during his vacations. The complete change from the schoolroom routine to that of the desk or counter will afford him a rest. The new experience and associations will interest him. The improvement he needs he will search out for himself in the dictionary, the book of reference, or the laboratory of commerce, for his improvement is then a living, vital want, not a vague duty which in the schoolroom he may scarcely have known or realized. It may be necessary occasionally to leave teaching for a term or a year. Probably most school boards would be willing to grant leave of absence for such purpose, for generally school boards are largely made up of business men. This course would not take from the teacher's scanty wages, but would give him an income while he is improving himself. He would get the spirit of enterprise and hustle of the commercial world into his work in the classroom, saving much time for the pupils and at the same time setting them a good example in getting things done. He can intelligently compare the real of the commercial world with the ideal that is yet to be wrought. The commercial teacher of the future must be the person with a mind trained along broad lines in school or college to reason, reflect, and judge; a nature which understands and sympathizes with boys and girls; a man who has been tried and tempered in the work of the commercial world. The commercial teachers who need improvement have the laboratory of commerce at their door, and such a laboratory is not supplied by any school. There is no bottle on the shelf or Bunsen burner on the table, no apparatus in the case or specimen in the glass tank, no textbook of experiments to follow, but in the laboratory of commerce is the living, human life, of which the commercial teacher should and must be a part.

DISCUSSION

E. K. Isaacs, president, Woodbury Business College, Los Angeles, Cal.—The private commercial school is a business enterprise. As such it is subject to the same inexorable laws that govern success in any other business enterprise. Every interprise must have a head. That head should be above all else a business head. The president, proprietor, or manager of a business school, therefore, should be a business man or business woman, as well as a business educator. But the term "business man" does not mean a shrewd trickster who can drive sharp bargains. It means a man of education, ability, public-spiritedness, and of broad, comprehensive views of life. The same qualities essential to the successful manager are largely essential to the successful teacher, for the teacher is in turn the manager of a department, or of a class, or of individual pupils.

But before proceeding farther I wish to call attention to the word "required" in the title to this discussion. "Available means, and additional means 'required' for the preparation of commercial teachers." The word required implies authority. The public schools are under authority. The public-school teacher is authorized to teach after having shaken and taken the "available" means required by the proper authorities. The manager or principal of a public school is himself managed—is required to be and to do by those

higher in authority. But who or what is it that issues requirements touching the proprietor or principal in the private commercial schools?

I have already stated that the private commercial school is a business enterprise. It is also a well-known fact that success is the end and aim of all human endeavor. The desire for success and happiness is inherent in the human heart and brain, and there is no board of examiners or other authority required to produce this desire. But success is an effect and there can be no effect without a cause. It is hardly probable that anyone can have risen to the place of proprietor or manager of a school or any other enterprise, or to the plane of a commercial teacher, until he has learned at least some of the laws that govern success—until he has learned to set in motion causes that shall produce desired effects. Again, self-interest—not selfishness, but legitimate self-interest—is the basis of individual success, and of all human progress. The successful business man knows this. The successful school proprietor knows it, and no "authority" is required to spur him on to higher endeavor.

I have thus far spoken mainly of the private commercial school proprietor, first, because he is often also a teacher or has passed thru the teacher's chairs; second, because in him reposes the authority of management, and upon him rests the responsibility of fixing standards and of ascertaining whether his teachers have taken and are continually taking sufficient doses of the "available and additional means" required for up-to-date and effective business-college work.

Again I ask, who or what is the authority or governing power that fixes standards and requirements for private commercial schools? I answer, the law of success. And the law of success is more binding, more sacred, more absolute, and more inexorable than any law of church or state or board or paternal organization.

The mission of the commercial schools is to educate young people for successful business service and for effective work along business lines. No factory could exist unless it manufactured an article or a product that is in demand and whose quality should answer the requirements of those who use the products. The business-college graduate, in one sense, is its manufactured article—its product—and inasmuch as men do not gather figs from thorns or grapes from bramble bushes, neither do business men utilize the products of inferior schools. And there is where the law of success and of self-interest—self-preservation, if you please—gets in its effective work. The demands of the business world, therefore, regulate the standards and the efficiency of the private business school.

A commercial-school teacher must, of course, have a knowledge of the branches of study that he is required to teach. The work of the average business college is organized under two main divisions or courses, usually designated as the commercial course, and the shorthand and typewriting course. Aside from the three subjects of bookkeeping, shorthand, and typewriting, the tributary branches are arithmetic, penmanship, spelling, rapid calculations, business law, and business English. Some schools have added commercial geography, civil government, and economics.

During the past few years a few brainy and public-spirited business educators have evolved the idea of a sort of parental institution, have called it the Commercial Schools Institution, and located it at Washington, D. C. This institution offers quite extensive and elaborate courses of study, both by mail and personal attendance, covering several years, and at certain fixed tuition rates. The Commercial Schools Institution invites the "affiliation" of all worthy private commercial schools, such affiliated schools thus coming under the supervision of the parent institution. Whether any considerable number of private schools will recognize the cluck of parental solicitation and will consent to gather under the supervising wings of another private institution, remains to be seen.

The available sources of education already mentioned are the public schools, the normal schools, the private commercial schools, the commercial departments of colleges and universities. But there is another school which is not only available to everyone, but from

which everyone who desires to be successful must take a life scholarship. I refer to the great school of life.

The school of life has many departments, among which may be mentioned the department of business and commerce, the department of civics and politics, of art and literature, of science and invention, of ethics and religion. To be successful in the highest degree as a private commercial teacher, or as anything else, one must be a constant student in these various departments of the school of life. Nor is it necessary to this end to be confined within college walls or in cathedral halls. It is necessary, however, to be in perpetual touch with the great everyday throbbing pulse of the world as reflected in the modern newspaper, magazine, and other current literature, and manifested in the affairs of men and society.

But there is still another department in the school of life that must not be overlooked, and that is the department of self.

It is necessary to look out from self and study the affairs of the external world, but it is only as one comes into a realization of the inherent potentialities within himself that he can develop strength and power and efficiency as a school man, or any other kind of man. And realizing this he also sees the same potentiality in every pupil and in every other human being. And not until he does see the man or woman in the child, even as he sees the oak in the acorn or the blossom in the bud, can the school man do his best work.

A bulb is planted in moistened earth:
Behold a mystery—the lily's birth!

Not all the general and special and technical education and training of all the schools and colleges and universities in the land will avail unless the teacher feels within him this divine essence and impulse which enable him to stir into action and to give impetus to the latent forces in the pupil and thus to bring forth the greatest thing on earth—an efficient worker—to take his place in the great business vineyard of the world, and thus forever to give value received to the world for the great privilege of living in the world; of being a citizen of the universe, and a constituent part of God's creation.

CO-ORDINATION OF INDIVIDUAL AND CLASS INSTRUCTION IN COMMERCIAL BRANCHES

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Technical schools and universities with their laboratory methods have developed the productive side of the individual. It has been individual instruction rather than class instruction with this one idea in mind, that of increasing production. By means of laboratory methods, certain powers of the individual have been developed which have not necessarily made him a better citizen. He has gained power in reasoning, in eliminating, combining, and grouping elements which have been constant in their relation to one another but when it came to a question of exchange, when the likes and dislikes of man entered in, the question was broadened, made more uncertain. The private laboratory or technical school no longer gave him the power to solve the problems of the future. His results depend upon the ever-changing problem of man's advance. The laboratory methods in history may give the student the past conditions and tendencies, but more essential than these are the powerful influences of the present. Time was when the individual need not consult the wishes of another person, but this no longer is true. His neighbor is a factor in deciding his future, and his neighbor is no longer the

man who lives next door, but the man who lives across the seas. "The outlook of our times ranges across the seas; the active minds of nations are centered not on literature and art, but on gaining command over the forces of nature and on possessing the earth." We can no longer stay the tendency of our age, it is too far advanced.

We have too long given our attention to what might be called liberal education, by which is especially meant, history, literature, and the kindred subjects. And far too little attention to subjects which are more nearly allied with our living, which subjects have received the slighting term of "bread studies." Yet it must be recognized that in this age we cannot plan too narrowly. Our technical schools must be more than trade schools, and our commercial colleges more than "clerk factories." Many argue that our technical schools will result in bringing about men who compare favorably with the journeymen of our mediaeval times. Men who lack a broad education and feeling of brotherly love and of civic pride. These ideas are being guarded against by the introduction into our commercial colleges and trades schools of subjects which have for their ideal the full recognition of the brotherhood of man. Here we are developing, not only the individual power of doing the work assigned him, but we are bringing him in daily contact with his fellow-students in such a way that he must fully recognize his relation to them, that he may recognize the equality of man.

Our classwork often tends to bring about too uniform a product which is so symmetrical and so evenly balanced that the mind is always in a state of equilibrium. Where grooves and channels are so well worn, definite conclusions of the mind can as surely be relied upon as tho a machine were responding to stimulation. What is here needed is not more uniformity in process and product, but more originality. The student would then be of value, not for what he is, but for what he may become. He should be of worth, not for the information with which he is endowed, but for his skill for gaining and using new information. We have been severely criticized because of the uniformity in our public schools and foreign educators have said that our nation is becoming great and powerful, not by reason of education, but in spite of it.

The subjects offered in commercial courses are of such a nature that all have some direct information on the question at hand. It is not information handed down from centuries past, but information that pertains to the solution of problems at hand. Because of all being acquainted with these problems, interest is very easily aroused in the same. The average problems pertain to the immediate and future prosperity of all students, and interest we see developing is interest of the maximum instead of the minimum. Interest which soon develops into involuntary attention and in which the student soon loses sight of himself in the solution of the problem before him. Here we see the practical side of commercial work, because very few students fully realize the importance of education, as it is argued, for its own sake.

Some have said there is no true theory or method in business, and that

the description of business purposes will not result in the saving of time and getting of better results. And others have said that business men are born, not made. It is true that the great magnates of the present are men who have foreseen great opportunities and have seized the same. Your ancestors and my ancestors made it possible for these managers to accumulate great fortunes by large land grants, and exclusive franchises which are crippling many of our cities of today. And we, who are of the present, must develop men who are some day to deal with these managers and perchance become managers themselves. The problem they are likely to confront in future life, can, with much interest, be discussed in classwork.

The importance of commercial work must be recognized when we take into consideration the fact that in 1802, 73 per cent. of the graduates of Yale College entered what was called the learned profession, and 17 per cent. filled business positions, while in 1902, the proportion was reversed.

In the classroom the impetus is given which will relieve business of the monotony of its routine and raise business above the mere machine. Heretofore the commercial classroom has been accused of being a place in which the boy is prepared for business, in order that he might devote more of his time to recreation outside of the office. Now, he is taught to surmount the mere details of office-work and get a broader view which enables him to enjoy the modern business transaction. Courtesies he must extend to others in the classroom are like courtesies he must extend to business men upon the street, and here should be developed the professional courtesies which lawyers and doctors extend to one another.

> The lad who enters West Point is no braver than his fellows, but years of constant teaching that personal honor is all important and his experience, in unfaltering courage and unswerving fidelity to duty, instills into his being a quality which makes him a braver man in the face of danger and makes him more certain in carrying out his orders without counting the cost to himself.

A person, given a similar education in honesty and elements of professional courtesy in business, would have great strength to resist temptations which so often lead to ruin and disgrace. In individual instruction we should discover the special aptitudes and powers of the individual. We readily see by close contact with the individual student, his special views on any one problem. We readily gain the information as to whether it is original or borrowed. If wrong conclusions have been reached, we can more easily return to planes of equality and agreement and build up the framework necessary to the solution of our problem. This is often quite opposite to the method pursued in classwork, where too often the development of the mind is quite lost sight of, and the problem under consideration becomes the all-absorbing theme. Or again, in classwork, the instructor too often thinks of the learned presentation of his subject without considering the power of application on the part of the student.

In our individual instruction, we are able to earmark what must be known

by letter or number, and can designate in similar manner what the student knows. We then have our base of operation clearly in hand and can proceed to teach him what remains to be known. This can better be done in individual than in class instruction, as what our students know in regard to subjects in hand varies quite markedly, because they have not had the same preparation. We must always guard against the teacher becoming too important a factor in gaining what remains to be known. We should always bear in mind the thought expressed by Philip of Macedon, when he presented his son to Aristotle as a pupil. He said, "See that you make yourself useless to my son."

In our individual instruction, we are getting at the root of what we are to think and reason about later on. Have your thinking first and plenty to think about, and then establish principles to guide in drawing conclusions. We should cultivate a healthy curiosity and classify the results of our observations; then reflect. Some one has said, to have ideas is to gather flowers; to think, is to weave them in garlands. Weaving and thinking should be synonymous.

In individual thinking we can teach more with an eye on our pupil, and not merely on the work he is turning out. We can train him to set labor above whim, to develop the less promising parts of his mind as well as the most promising parts, to make one talent ten and two talents five, to get enjoyment out of overcoming difficulties.

We must not confuse individual instruction with information gained at first hand only. He who would gain knowledge in this way alone, would be returning to the savage stage. We should gain power by the experiences of others whether we get this experience from the printed page or by word of mouth, so contact with minds opens new avenues of approaching subjects under consideration and our view-point is broadened. Whatever gives the mind a larger view increases individuality.

To give each person in the world the net results of the experiences of all his educated fellows is the object of education. Man can live over again the experiences of others without suffering their rebuffs and disappointments. The uneducated man cannot do this.

Class instruction tends to the development of the student as a part of a unit. It is an integral part in which the student participates in the making of the unit. The class and this individual are counterparts of each other, and not the opposite extremes as one might suppose. The unit of thought of the class is not the individual thought or the aggregate thought. We may agree on a certain subject under consideration and differ on another subject. This brings out the natural resistance as well as the mutual dependence, rivalry as well as sympathy. Unity of a class or society is not fixed, it is ever growing, thus we see we must have differences and likenesses in order that we may have growth.

The student must be able to adapt himself to conditions which do not agree with his ideas, because we must not only fit our students into existing condi-

tions and institutions, but must fit men to make existing conditions and institutions better. He must learn to stand in opposition to his fellow-men, because, in all classes we have rich and poor, good and bad, ruler and subject, religious and irreligious, conservative and radical. No individual understands himself when alone. It often takes an opponent to develop in man and reveal to his consciousness, the best or the worst that lies within him. Thru opposition we come to recognize and develop the manifold possibilities that life contains. As the struggle in the flame in the candle, gives light and shows the result of combustion, so in life the struggles are indicative of opposing influences with advancement definitely marked. The other man in the class, the other class, the other school, has a positive share in the life of every student and this rivalry or active opposition instead of weakening the student, should develop him.

Again, adaptation should come as the result of class instruction. In practical life the job has to be done and the man must adapt himself to it, or lose it; and in practical life, all but trained men are going to have a hard time. Besides adaptation, and habits already spoken of, class instruction teaches the student punctuality, regularity, and observation of order. All essentials of the individual, if he wishes to succeed.

In our individual instruction, we are not always sure of results, and as impression and expression are counterparts and beget one another, we should cultivate the two together. In classwork, expression will tend to clearness and definiteness of thought. While looseness and inaccuracy in the use of words, lead to indefiniteness and lack of clearness of thought. Thus must we combine classwork and individual instruction in order that we prepare the student for his future problem.

As truly as we must cultivate patriotism in a soldier, humanity in a physician, self-denial in a missionary, love of beauty in an artist, in exactly the same way, must we secure the aptitudes for commercial affairs, a desire for work, the love of order and economy, the spirit of enterprise, clearness and judgment—all essential qualities in a good business man.

DISCUSSION

Thomas H. H. Knight, junior master of Girls High School, Boston, Mass.—In discussions of this kind I observe that there is a great temptation to wander away from the main point and to enlarge upon themes which have nothing to do with it. We are not at present concerned in the glorification or defense of commercial education; we are simply to discuss one phase of it, and since it is my province to introduce the discussion on this paper, I shall ask that each one who speaks shall confine himself to the topic.

In this discussion there are at least two classes of persons whom we can easily spare: First, those who are getting along well enough with present methods and who have not the time nor the inclination to take up with anything new. Then there are the radicals—those people who take such extreme views that they can see no good in the other side. I do not mean to deprecate enthusiasm nor positiveness of opinion, they are the things which mark the pioneer who forges ahead of the rank and file and calls upon the rest of

mankind to follow him into new fields; but the rank and file must follow slowly if at all; the ground must be looked over carefully if disaster is to be avoided.

The question of individual instruction has been before us for some time and because it tends to discredit the old-fashioned recitation period it has been seized upon by some of the restless spirits who are hungry for reform. These people have been telling us with great insistence that the pupil is an individual and should be treated as such, that our education-methods, whereby all pupils are run thru the same mold, are all wrong. They love to borrow figures which cast opprobrium on present methods—we hear much of the "lock-step," "marking time," etc. They never by any chance refer to classwork as "teamwork" or compare it to the precision of an army corps. They lose sight entirely of the fact that the individual will always be one of a class, that his activities must be circumscribed by the activities of others, and that the more perfectly he has learned to modify his own ideas and to supplement those of others, the more successful he will be in life.

On the other hand the extreme adherents of class instruction characterize the whole movement for individual instruction as a fad, and to them "fad and failure" is an alliterative jingle which pleases the ear and satisfies the judgment. We have it on what may be considered good authority that it was carefully tried in Kansas City and abandoned. It has been denounced as uneconomic in time and energy, in short it has been shown that the whole system "hasn't a leg to stand on." But as I said in the beginning, it seems to me we should eliminate discussion on the general merits of the two systems. I take it that we are just plain people who are trying to get together to see if by an exchange of views we can improve by ever so little the work we ourselves are doing in our own classrooms.

The writer of this paper says there is some good to be found in both systems and I think we agree with him. It is to be regretted, therefore, that he has not offered out of his own experience some practical suggestions for co-ordination of individual and class instruction. We are ready to follow him in his contention that they should be combined in some way, but how is this much-desired consumation to be reached? I hope as the result of the discussion which it is my province merely to indicate that we shall get some practical answers to this question.

The problem before us is the pupil. His tastes, inclinations, and capabilities are not greatly different from those of hundreds of his fellows. With all our limitations how are we going to effect the highest function of education which Dr. Harris says is to "open the windows of the soul" so that the pupil may interpret correctly the experiences which come to him in life. If a combination of individual and class instruction will help us to do this, by all means let us have it. Some practical suggestions made by Mr. Collins of the Stevens Point Normal School are:

1. The setting apart of consultation periods to assign extra work to strong members and to aid weak ones over difficulties.
2. Conferences at the end of the recitation period.
3. Individual instruction during part of the hour; either at the beginning or end.
4. Chalk and talk, in which all members of the class work on the same problem with pencils while one student talks at the board.

If anyone can give observations based on practical experience with any of these or other similar methods it would be a very valuable item in this discussion.

THE RELATION BETWEEN GENERAL AND COMMERCIAL EDUCATION

JAMES M. GREEN, PRINCIPAL OF THE STATE NORMAL SCHOOL, TRENTON, N. J.

In some parts of our country, especially in New Jersey, we have what might be termed an epidemic of commercialism in education. The microbe has so worked upon our educational system that there are many who seem to

think that if a man is to follow any commercial pursuit, in reality or hypothetically, he should at a very early age take up special studies and of a narrow order.

We have a great many schools that call themselves business colleges, and which offer courses of study that are the inverse of college in that they are most elementary, narrow, and mechanical. The representatives of these so-called colleges canvass in automobiles, on bicycles, in railroad trains, by mail, and in every other way for pupils to come to them who have not gone farther in a general education than the third year of the grammar school. These pupils are deluded into the notion that these schools have some patent open sesame to business or commercial life, whatever that may mean, that does not call for the study usual to the general courses.

We also have in connection with a large number of our academies or high schools of four years' courses short courses called business or commercial courses that may be taken in two years, and for which, in a number of instances, the diploma of the school is given. In a good many places this diploma is received with the feeling that its holder is quite as fortunate from an educational point of view as the one who contemplates some other line of occupation is in holding the diploma of the four years' course.

The popularity of these special commercial courses, including commercial arithmetic, commercial geography, commercial history, etc., is due partly, I think, to the impractical selection of subject-matter in these subjects in the general school courses, and partly to the idea on the part of a good many men that equipment for business does not depend so much upon the development of the general judgment as upon the learning of a few things well and then "getting behind the counter."

It is in protest to this condition of things, and with the hope of laying some emphasis on that kind of education which is general and yet supplies the demands of the usual commercial man, and also calling attention to some branches which are now regarded as commercial but that do not apply to the commercial man more than to any other man, that I have undertaken this place on your program.

Any intelligent discussion of courses of study must involve the understanding of the purposes of education in the fuller sense. To educate a man is more than to teach him to do one, two, or three things. We may teach a horse to stand on his hind feet and pull a bell-rope with his teeth, or a dog to jump thru a ring and turn a somersault, but we would not consider either of these animals educated in any human sense. Education is the development of all of the proper powers of the man to the highest practical degree. Reduced to common terms, this means the development of his powers of reasoning and judging and thinking on the ordinary problems and occupations of life, his ability to take his part among his fellow-men, and know and understand the ordinary problems as they present themselves, with their natural solutions.

We classify our education as general and special. General education is that which is essential to everyone, no matter what occupation he intends

to follow. Special education is that which relates to some particular occupation or pursuit, the preparation for which is not covered by the general education.

The extent to which a general education is essential, as distinct from simply desirable, is debatable, and is more or less a matter of opinion, but that there is a large amount that is essential will not be debated. All elementary education should be general. Usually, a large portion of the secondary-school course is general, a few electives being allowed which have a special bearing. Very often the college course is general. In many cases, however, part of the college course is general, part has relation to some special occupation, as engineering or law. The university and technical school are, in the very nature of things, special.

It is not so much the object of this paper to clearly outline the distinction between that which is general and that which is special thruout the curriculum, as to show the proper relations between the general and special in secondary and lower college courses. If, therefore, I cease to keep before my hearers the grade of the education, it is simply to avoid awkwardness and dwell upon the principle involved, rather than the strict details.

General education is composed of those branches, or parts of branches, of study, which are used by man in contact with his fellow-man in the social organization under which he lives, in correspondence, communication, in business, in short in everything which constitutes his life as man; such branches as reading, spelling, penmanship, drawing, arithmetic, geography, American history, English grammar and rhetoric, physiology and hygiene, elementary plant and animal life, the primary essentials of physics, chemistry, business and social forms.

These are the branches that may be described as the common expression of the activities of man. They are not adopted by him, they are his nature disciplined and developed.

In the selection of topics for schoolroom work under these respective branches, care should be taken to select those topics which will throw most light on usual experiences. To illustrate: The teacher of geography should not be content simply with teaching what the textbook suggests, or what he studied himself as a pupil. He should rather ask, what has common experience found to be the most useful knowledge in geography? He would find, in answer to this question, not the memoriter work of some years ago, which consisted in memorizing the names of all the different capes and bays, peninsulas, isthmuses, rivers, mountains, cities, towns, etc., a process the results of which were sure to fail him in his later experiences, but the learning rather of those essential features in geography which remain with him and make a part of his judgments in all his calculations, such as the shape of the earth, its motions, its climate, and the effects of its climate on its productions—that is to say, on its life conditions; drainage, atmosphere, field and laboratory work, interpretations of maps, etc.

In arithmetic, the question would not be, can I study elementary, advanced,

and high-school arithmetic, with all of the variety of problems, catch and otherwise, that might be imagined, but what knowledge of arithmetic will enable the boy to solve the problems that usually present themselves, such as the fundamental rules, common and decimal fractions, percentage, interest, etc.

In history, not the unrelated records of the deeds of the past, but an interpretation of the institutions under which we live in the light of the experience of the past as related to these institutions, as, for instance, municipal government, local and state and interstate relations, transportation, systems of exchange, social customs, etc.

The point that I should like especially to emphasize is that the selection of matter in this way in the departments of general education will suit best the commercial demand in all that is not strictly detailed and special.

As indicated above, the pursuit of the branches that are conceded to be general in this manner will consume most of the time of the ordinary secondary-school course. Elections may be allowed in a few branches, such as the modern languages, bookkeeping, stenography, and commercial law, but when the elections are taken in bookkeeping and commercial law, these branches should be studied not with a view so much to keep books in a particular way and to know the commercial law of the land as to establish in the mind the systematic principle that is followed out in the keeping of books, and the natural essentials that enter into the formation of contracts for the transfer of property and for work. In so far as these branches are studied in this manner, they should be classified more as general than special subjects, and yet as a matter of fact, studying them in this way will furnish the necessary training for nearly all business houses. After a long period of observation, I have reached the conclusion that more depended on the thoroness in which the work that was done in these branches was accomplished than on the special or general nature of the school. The boy who does his work thoroly in the ordinary high-school bookkeeping is able to keep books in any institution of a common order, especially if allowed a little time to adjust himself.

My strongest point in favoring this kind of a course thru the high school is that the pupil is unable to anticipate his future employment. Of all of the boys I have known in the high schools with which I have been connected, it is safe to say that not 3 per cent. of them secured exactly the employment they anticipated. One expects to go into business. He thinks he would like to be a salesman in a wholesale drygoods house; he fails to get employment in such a house and takes it in an electric house; and so, in one way or another, practically everyone fails of being able to anticipate exactly what he will do. A few persons are actually employed in bookkeeping and stenography of a mechanical order for which, and for which only, they are prepared.

The place for special commercial courses seems to me to be in the higher institutions of learning. An examination of some of the courses in these institutions gives one the impression that there is not there a clear discrimination between that which is general and that which is commercial. For instance,

sociology, ancient and modern social ideals, projected types of an ideal society, American social problems, a study of the negro, Indian, Chinese, and other race problems, criminology, tariff history of the United States, government of the United States, a study of the theory and present practical operation of the federal constitution, citizenship, federal and state, a comparative study of civil government in Europe and the United States, a study of the executive power, its position of leadership in modern government, the present activities of political parties in the United States, international law, the police power, etc. Valuable and interesting as are these subjects, all of them quotations from business and commercial courses, I submit that they are too broad to apply to any particular occupation as distinct from another. Perhaps the men who would most need a knowledge of sociology would be statesmen and clergymen.

There can be no objection to any man in any institution studying any one or more of these subjects, provided he is interested in the subject and studies it in a manner that will bring to him valuable knowledge and disciplined habits of thought as a consequence. The only objection comes from a confused notion as to the specific relation of given subjects to given pursuits.

In closing, permit me to reassert that the education which is of greatest value and which is first in order is that education which will enable its possessor to meet the greatest number of problems and activities that are likely to present themselves.

The education that is strictly special should be taken only when the person is sure that he is to pursue a strictly definite occupation, and should then be taken in the broadest way possible consistent with that occupation.

The planning of our courses of study in this manner will tend to strengthen legitimate commercial courses as it will tend to free the public mind from delusive ideas, and to furnish that kind of knowledge which will be strictly reliable.

DEPARTMENT OF CHILD STUDY

SECRETARY'S MINUTES

FIRST SESSION—TUESDAY MORNING, JULY 9, 1907

The department of Child Study met in the First Methodist Church of Los Angeles at 9:30 A. M.

In the absence of all of the officers of the department Mr. George L. Leslie, director of science department of the Los Angeles City Schools, was chosen acting president. Miss Laura B. Bennett, of the Los Angeles City Schools, was appointed secretary.

A paper was read by J. K. Stableton, superintendent of schools, Bloomington, Ill., on the subject, "The Delinquent and Dependent Child in Its Home Environments." A general discussion followed.

Henry Suzzallo, adjunct professor of elementary education, Teachers College, Columbia University, New York City, gave an address upon "The Child's Emotional Life and Its Training." A discussion followed.

The department then adjourned.

SECOND SESSION—THURSDAY AFTERNOON, JULY 11

The department was called to order by Acting President Leslie.

Professor F. B. Dresslar, of the University of California, read a paper upon "The Contributions of Twenty-five Years of Organized Child Study in America to Educational Theory and Practice."

Acting President Leslie addressed the department upon "The Child Study Movement in Los Angeles."

The following were elected officers for the department for the ensuing year.

For *President*—William H. Burnham, professor of pedagogy, Clark University, Worcester, Mass.

For *Vice-President*—William L. Bryan, president of State University, Bloomington, Ind.

For *Secretary*—M. V. O'Shea, professor of Science and Art of Education, State University, Madison, Wis.

The department then adjourned.

LAURA B. BENNETT, *Secretary.*

THE TRAINING OF THE CHILD'S EMOTIONAL LIFE

HENRY SUZZALLO, ADJUNCT PROFESSOR OF ELEMENTARY EDUCATION, TEACHERS COLLEGE, COLUMBIA UNIVERSITY, NEW YORK CITY

[CONDENSED STENOGRAPHIC REPORT]

A half-century ago it was the belief of the leaders in American education and in American public life that knowledge was, in social affairs, power. It was a firm conviction that if the school gave intellectuality to the citizens of the nation that moral character, efficient in private and social affairs, would be the result. A present-day view of the situation shows less optimism with regard to the force of a merely intellectual education.

This lack of optimism is due to the fact that certain discrepancies have been noted between school education and social efficiency. There are college graduates who are criminals in spite of their intellectual training, and there

are illiterate men who are useful citizens, strong in their regard for law and order, in spite of their lack of formal knowledge. So long as such examples of the lack of correlation between education and character exist the educator who is trying to control human nature thru the school must take note of a problem which questions the assumption that a mere intellectual training is adequate for character-building.

The modern school cannot train for character unless it trains all those qualities or aspects of man's character which influence his conduct. There is clear evidence that in many cases the American public school is a merely intellectual institution. The reaction against such a condition of affairs is indicated in certain new tendencies appearing in our school practice. On the one hand, the school is using expression and action far more than it did a decade or two ago. This is noted in the rise into importance of such subjects as manual training, drawing, music, and composition. On the other hand, the school is more and more taking count of the emotional elements which appear in school life as an opportunity for influencing the child's character. This latter tendency may be noted in the additional use of such incidental influences upon character as schoolroom decorations, exercises for holiday occasions, the organization of clubs, and societies for the athletic, social, literary, and disciplinary interests of the children. Perhaps of the two changes in our recent history, the tendencies that influence the emotional life are less obvious. This is to be expected. The emotions are far more subtle than ideas or actions. In consequence it would be exceedingly valuable to speak of the emotional life, its characteristics, and the methods and opportunities for its control.

The modern psychologist recognizes that the emotions play differently upon human life. On the one hand, there are those feelings which have a purely internal significance, which operate as a recreative force in human life. These are the aesthetic emotions, which are everywhere manifest in music, the plastic arts, and literature. On the other hand, there are those emotions the significance of which is mostly external and social. These vital emotions, pride, anger, indignation, ambition, sympathy, jealousy, etc., have usually a direct reference to one's relationships to other human beings. They are the feelings which are at the back of social progress and social order. If the school is to be an instrument of control for the purpose of making good citizens of men and women, the vital or social emotions mentioned are among the most important elements in the school life. It is with these in particular that we are concerned in this discussion.

The function of the emotions is to be found in their stimulating quality. They drive the human being into action; they reinforce a line of action already in progress. Without substantial emotions a man is likely to be pale and colorless in the world's affairs. As a man without sympathy, he will not respond with quick sensitiveness to private or public wrong. He will count for little, therefore, in social co-operations. As a man without pride, he will in the face of the obstacles of life fail to maintain those standards of excel-

lency in behavior which he has assumed in the days of his youth when idealistic dreams builded rapidly under the protective influence of family and school life; as a man without ambition to reach higher things than he now holds, he will contribute little to the world's progress. It is emotion which gives fire and force to human life, which, cultivated above their instinctive basis, drives a human being into world-action, to make him a force for good or a force for evil.

If the emotions are the foundation of character, its primitive force, so to speak, the intellectual factors represent the instrumentalities for its direction and control. This is perfectly clear when we realize that sympathy and anger are neither virtuous nor vicious in themselves. A sympathetic man may protect an erring friend to the dissolution of a public law. A man who may be righteously angry at an offense to an unknown fellow may be the means of checking some great social evil. It is necessary that a man's emotional nature be directed to proper ends and to proper means. It must not be assumed, however, that intellectual control as represented in ideas and in human knowledge generally speaking is of much use unless the emotional qualities which are to be controlled by them are present in the human make-up.

The analysis of certain literary characters or of certain familiar figures in human history may shed light on the relative part of feeling and thinking in human action. The difference between the Sherlock Holmes of Conan Doyle's creation, and the Raffles of Mr. Hornung's imagination is a difference not so much of intellectual equipment as of emotional devotion. Each has amassed an immense body of knowledge, with regard to the habits and the lives of people of wealth, the police, and the community of crime. Each is quick in the observation of the criminal situations, and rapid in making deductions which are the basis for the next move. Each is trained mentally as well as physically to perform similar deeds under equally trying situations. But in human estimate these men stand at opposite poles: one is a thief living at the expense of society; the other is a public servant giving his support to the agencies of order. One is devoted to the ideas of the criminal class; the other is devoted to the protection of the better ideals of society in general. They are different in devotion, which means they are different in the organization of their respective emotional lives. A Raffles with a different arrangement of prides, ambitions, and sympathies might have been a Sherlock Holmes and a Sherlock Holmes might have been a Raffles.

A similar contrast is afforded in the heroic conduct of George Washington and the treason of Benedict Arnold. Both men had been, up to the time of Arnold's treason, men of high executive and military power. Both had suffered somewhat from the unappreciative and perhaps ungrateful attitude of Congress, but in the face of the trying circumstance the devotion of George Washington to the cause of colonial liberty was strong enough to withstand any counter feelings, while the devotion of Benedict Arnold was not sufficient to hold against the petty bitternesses and the pique which made havoc with his

loyalty. There were intellectual differences to be sure between these two great figures, but the fundamental differences are to be found in the emotional mainsprings of their respective characters.

So the analysis might go further. The instances in our ordinary life of weak human character would only reinforce the importance of the emotional element in human life. Everywhere about us are types of inefficiency which bear out this suggestion. There is the "impulsivist," the man of large and strong emotions with little intellectual control, who is constantly exploding in the face of every obstacle or difficult situation. There is the "sentimentalist," a person of much feeling but with a misdirected control of his sentiments which are constantly being devoted to things which a broad intellectual life would reveal as trivial. There is the intellectual type so similar to Shakspere's Hamlet, who sees so many sides of the truth that every tendency to act is checked by some counter perception. Again, there is "the academic mind" so unendurable to the man of large public affairs, who persists in discussing every fact from the standpoint of its theoretic interest as truth, disregarding the irrelevancy of many facts in a given present and crucial practical situation. All of these are types of weakness in life to be explained by defects in the relationship of emotional and intellectual elements.

In the school's business of making men and women who will be sane and wholesome, responsive and vigorous, it is clear that the directions of control must not be restricted to the intellectual but must include the emotional as well. Three things must be done with our fund of feeling: (1) Certain emotions at one time useful in the preservation of individual life must be for the most part inhibited. Envy and jealousy and certain other influences which were once effective in man's primitive time have little place in our modern life, and these the schools should attempt to stamp out irrevocably. (2) Certain emotions not overimportant in our past history which are now becoming more and more dominant in our civilization need to be strengthened. There is a larger place for the development of sympathy and love and the other co-operative emotions than there has ever been before. These the school should aim to develop with all its power. (3) There are certain other emotions which are neither to be completely inhibited nor completely discouraged. They get their value in social life largely in terms of the ideas to which they are attached. Anger is wrong as it is associated with narrow and personal, selfish ideas and situations. It is right as it becomes indignation toward some interference with personal purity and social stability. Here the school's main responsibility is to see that these feelings are rightly connected.

In the development of an emotion there are three distinct ways by which it may be fostered: (*a*) The first and primary means is thru the force of personal example with its resulting suggestion and imitation. Children are the constant imitators of the men and women about them. Fear in the teacher breeds fear in the child. An ambitious child is more likely to be found in an ambitious community. It is at this point that the teacher's personality,

strong in its emotional suggestion, becomes a large factor in influencing character. (*b*) Once a feeling is present in a child's nature either by instinct or by suggestion it will be deepened by the constant recall of ideas which have connected with them the particular feeling desired. To speak constantly and admiringly of Washington, Lincoln, Roosevelt, and others, who have been the impersonations of social sympathy and personal fearlessness, is only to deepen sympathy for humanity and individual courage. The second method, therefore, of strengthening an emotion is to recall it again and again by speaking of situations or persons with which that emotion is habitually associated. (*c*) The third method is to use expression and action. However fearful we may be, if we assume the demeanor and the physical attitude of courage we tend to stamp out fear and to strengthen the feeling which habitually goes with the given physical response. The truth of the Lange-James theory of emotions for the teacher is that a child should be given every possible opportunity to act out in school life the desirable emotions which a chance situation may stimulate. All of these methods are indirect. We get at the emotion by first getting hold of something else. The three ways are, first, the use of example; second, the recall of ideas associated with emotions, and third, the encouragement of expression which is appropriate to certain types of feeling.

The opportunities in school life for emotional control are many. Discipline as opposed to instruction offers the largest opportunity. It is because the emotions play so large a part in a disciplinary situation that it is more subtle and more difficult to deal with. The average child who needs severe discipline is hard to deal with pre-eminently because he is mastered by his own feeling. It is difficult to use moral suasion on the instant because it is difficult to get the child, immersed in his own emotion, to give attention to such examples, ideas, and actions as might suggest the counter and more desirable feelings, which the teacher is after.

Classroom instruction, which usually deals with the purely intellectual elements, offers its own opportunities, however. History, biography, and civics are subjects which give large opportunity for the teacher, as the representative of social opinion, to associate his personal emotional estimates with the ideas that come under discussion. Literature, which is usually spoken of as a subject affording opportunity for training moral character, has many emotional elements but they should not be used directly for controlling the social conduct of children. Following the classification given earlier in the address the emotions here used are aesthetic and recreative rather than vital and social. If character comes from literature, as it does, it is as a by-product rather than as the result of a direct aim and effort.

THE CONTRIBUTIONS OF TWENTY-FIVE YEARS OF ORGANIZED CHILD STUDY IN AMERICA TO EDUCATIONAL THEORY AND PRACTICE, AS APPLIED TO GRAMMAR GRADES

FLETCHER B. DRESSLAR, DEPT. OF EDUCATION, UNIVERSITY OF CALIFORNIA

There is no time for a thoro discussion of this topic. I must content myself with a mere summary of the more important results, and a few suggestions touching their significance in our care of the children of the upper grades.

1. Careful observation on the growth of children by Bowditch, Boaz, and many others, has brought to light the fact that most girls of twelve have reached a maturity comparable with boys of about fourteen, and that along with this superiority in bodily development there is a superiority in mental power and self-control.

The educational corollary of this knowledge has been put into practice rather tardily, I fear. In the upper grammar grades under women teachers, and in the first year of the high school, the standards set for excellence in classwork are standards measured more by what girls are able to do than by the ability of the boys. Mentally as well as physically girls are, at this period, almost two years in advance of the boys, and it is unfair to expect the same degree of carefulness, neatness, and finish from the boys, easily obtained from the girls. Many discouragements and dismissals or withdrawals have directly resulted from this unfair measurement of the boys. It may be that just here we will discover the weakest place in our system of co-education.

2. Many studies dealing with the motor abilities of children have emphasized anew and enlarged in detail the peculiar abilities and inabilities of the children in muscular adjustments. These studies have brought to our attention in a forcible way that it is a very easy matter for a teacher to expect children to do what they are physically unprepared to do. They have further shown that growth in physical training and manual training in all its forms should emphasize first and fundamentally the larger and coarser muscular adjustments, and that we should adjust our courses of study accordingly.

3. As a result of various and extended investigations it has been found that many children are mentally slow and stupid on account of physical defects within the power of the teacher or physician to correct. The difficulties growing out of defective eyes or ears have been brought to our attention in so many striking ways that a large percentage of the teachers in our elementary schools today are consciously striving to organize the work in such a way and to so condition the children that abnormalities will not be engendered, or that those which do exist may be counteracted and corrected. As a result, our schoolhouses are better lighted, our books are better printed, defective vision is corrected by proper glasses, those who are deaf are more carefully directed, and in many other ways the work of the school is so ordered as to

avoid imposing upon defective ones and especially to prevent abnormalities from developing in these directions. School administration now recognizes the essential need of trained specialists to examine into the health of the children, to the end that their physical well-being may be competently considered and properly guarded, for we now know that mental progress depends far more on sound normal health than we had even suspected heretofore. And especially have we learned that defective physical life lends itself readily to moral degradation in later life. As a result of the clearer knowledge of these facts, it has been found wise in Germany to establish a system of *Hilfsschulen*, or auxiliary schools, into which are gathered from the grades those defective children who are suffering on account of neglect and who at the same time are hindrances to the progress of normal children. It has been found that under special treatment and considerate care many of these children, who would otherwise get little or nothing from enforced schooling in the regular classes, develop into useful and worthy learners. The school physician will soon be as necessary a part of our school machinery as he already is in other lands.

4. As the result of a great variety of studies, I think we can safely say that it has been made clear to us that one of the best ways to get at the moral nature of the child is thru good health and proper environment, both in the school and out of it. This point of view is not a new one, but it has been greatly emphasized, clarified, and strengthened thru the study of those degenerate children, who cause the world so much trouble in their later lives. I think we have come to see in a convincing way that the child is not conceived and born in sin, but that he may be conceived and born of unworthy parentage and their physical weaknesses may entail upon him conditions which make it harder for him to live a normal life than for children not so handicapped. In other words, we have found that good physical inheritance, proper nourishment, pure air, and wholesome physical exercises and play, are often the best preventives as well as the best correctives in things moral.

5. Thru careful study of the games and plays of children, we have learned that these have developed to fill the natural needs and demands of child-life, and that they are better adapted to the physical growth of the normal child than any gymnastic exercises yet devised. And furthermore, that thru these games and plays children are brought into the most normal social and ethical relations. These studies have had a large influence upon the growth of the movement for larger playgrounds, as well as upon physical culture in general. They have operated to bring the teacher to see that thruout the ages the instinct for play has unconsciously directed children toward self-education, and has vital relations to growth and unity of personality.

Children who are cheated out of large opportunities for play, are thereby seriously hindered in their education. "Childhood is for play," says Groos, and whether we accept this dictum as it stands or not, we must feel that we now know enough to demand playgrounds and ample ones for every public school in our land. If this is not a new gospel, it is now felt to be a truer one.

6. We have learned thru study of the native interests of children that much of the schoolwork we have insisted upon has had no vital effect upon their childish lives and has aroused no active participation therein. As a result of this point of view, school men have been forced to more careful consideration of the curricula, to question carefully the needs and reactions of children, and to attempt to adjust the elements in any worthy education to the active organizing interests of the child-mind. This changed point of view is not wholly the product of the last twenty-five years, but it has been emphasized, clarified, and brought to our attention in so many striking ways that it has come to be a large element in our professional consciousness. Interest is one of the most significant words in our educational vocabulary. This conception touches our schoolwork at every point and charges teachers to carefully inquire into the relations of their work with the child-mind. The emphasis derived from these studies has had much to do with the enlargement and modification of curricula; it has changed elementary science into nature-study; it has changed sailor geography into home geography; it has helped to eliminate much from arithmetic and to modify very materially the methods of dealing with that which we now give. It has curtailed grammar and enlarged literature, and has been a large element in eliminating brutal punishment from the schoolroom. It has made the work of the teacher more joyous, more endurable, and has helped to establish relations between pupil and parent previously impossible.

7. Interesting studies, such as those inaugurated by Mr. Johnson concerning rudimentary society among boys, have brought to light the peculiar ability of boys to deal with boys. Out of these general studies have come all sorts of organizations for self-government and self-control; we may cite such movements as those typified by the George Junior Republic, the Columbia Park Boys' Club, the School City, and many more of like nature. School management and control have largely shifted their point of view from devising rules to prevent breaches of discipline, to earnest attempts to so condition the children while in school that they will realize that schools and teaching are devised for them and not for teachers. Meanness in school is no longer a sin against the teacher, but against the school and school-fellows. The word discipline has largely given place to management, and even this word contains a growing content of co-operation. Consequently the days of flogging indiscriminately and injudiciously have about disappeared. And real true whole-hearted obedience in the schools is more in evidence than ever before. Those teachers who knew no better and who could keep school only by vigorous applications of the rod have been almost eliminated. School government has come to be more a matter of moral training and social co-operation.

8. It has been made plain by many studies that the meanings put into common words by children are far more varied and far less exact when compared with adult standards than the world had previously supposed. The ignorance of children concerning the common events and facts about them, especially

of those children brought up in cities, is far more dense than our teachers had taken for granted. The experience of the modern city child is so narrow and incomplete that it is impossible for us to suppose that it puts into language and literature any adequate sort of rational relations. The contents of the minds of children upon entering school in no sort of way fulfill the standard taken for granted by the average teacher. Investigations in this field have brought out these facts very clearly. It is an important contribution to bring to the attention of those preparing to teach and who have not made any serious attempt to get into touch with the thought life of children.

We have come to see thru studies of the mental life of a child that it depends for its content far more upon its environment than we had expected; that not only are children influenced by the environment in the school, in the home, and in the church, but by ideals gathered from the general community in which they live. We learn, too, that those ideals which appeal to them are derived from the active lives of the adults who surround them. In other words, social imitation is far more significant than the world had previously understood.

The results of these studies have made us realize far more fully than before how easy it is for us to misinterpret and misjudge children because their words are used to carry only their meanings, and our words are used with a meaning they cannot fully receive. When teachers realize these things, the facts operate to influence them in at least three ways: They select words to accord with experience; they strive more diligently and intelligently to enrich the pupil's experience in order that they may better understand each other, and they also see that the meaning of words may be, and often must be, absorbed from the teacher's attitude toward them and their relations to words already more fully known. Those words, freighted with meanings the child cannot interpret, must not be imposed, but they can become a most effective means for suggesting meanings, enticing thought and prefiguring possible experience.

These facts have also had a decided bearing upon textbook making, on the selection of the material presented in a course of study, and have especially emphasized the importance of real contact, and real experience with a many-sided world. We know better now than we did before, that ability to reproduce words and definitions does not signify ability to understand them.

9. Numerous studies have brought to light many interesting facts regarding the emotional and intellectual conditions of the early adolescent period. It has been found that it is a period when new emotions, new sentiments, and a new outlook upon life, are born; it is a time when old connections are enlarged, new thought relations are established, new instincts are awakened, and new interests dominate. In this period the egocentric attitude begins to give place to the altruistic, religious emotions are awakened, large ideals are formed, and personal initiative suggests new attempts and new points of view.

Those teachers and school authorities, those preachers and anxious parents, who have caught the meanings of these larger views of youth, and have sought

to follow their guidance, have come into an intelligent, conscious, sympathetic relation to young people otherwise vouchsafed only to those rare personalities known as "born teachers."

The facts connected with the development of the emotional and religious life of youth, ought, and in time will, make it clear to Sunday-school teachers that at the present time nearly all of their time is wasted, because it is spent in trying to deal with religious notion and feeling totally beyond the experience of the little children. They will come to see that religious education, in a formal and intense way, should be put off until the beginning of adolescence and continued thru it in a wholesome way.

The old theological notion that children are conceived and born in sin is dying out, and this phase of child study has hastened its coming extinction.

The Chinese have not been handicapped with such a doctrine, and have wrought on the basis that children are naturally good, and proper education will keep them so. This phase of child-study has brought into prominence, too, the necessity of supplying young people with those opportunities of personal initiative in literature, art, and invention, which correspond to wholesome and legitimate desire on their part. It has emphasized the importance and helpfulness of those teachers who can command the interest and respect of young people thru sympathy and wise adjustments of the demands of life to the ideals characteristic of this period.

THE DEPENDENT AND THE DELINQUENT CHILDREN IN THE HOME ENVIRONMENT AS A SCHOOL PROBLEM

J. K. STABLETON, SUPERINTENDENT OF SCHOOLS, BLOOMINGTON, ILL.

This is a study of the work attempted in Bloomington, Illinois, a city of thirty thousand, for the past six years. A statement of the Illinois Compulsory School Attendance Law, the Juvenile Dependency and Delinquency Laws, and the Child Labor Law, is necessary to make clear the conditions under which the work has been carried on.

In brief, the Compulsory School Attendance Law says that every child between the ages of seven years and fourteen, not physically or mentally incapacitated for schoolwork, shall attend school the full number of weeks the school is in session in the district in which the child lives. It makes the proper enforcement of this law the duty of boards of education and empowers them with the right of employing attendance officers to look after this work. The law holds the parents finable for non-compliance with it and on failure to pay the fine they may be committed to jail.

The State Child Labor Law supplements the Compulsory Attendance Law and takes away the temptation that comes to many parents to take children from school for purposes of gain before the children have had even the minimum of school privileges the state gives them. This law does not permit any child between the ages of seven years and fourteen to be employed

at work for wages during any part of any day while the schools are in session; and holds both parents and employers responsible for violation of the law.

A dependent child is one practically without a home; or the place it calls a home provides but little or nothing for physical, mental, or moral needs of the child. When the child almost or wholly lacks support, it is according to the law, dependent.

The Juvenile Delinquent Law declares a child to be a delinquent when he is incorrigible, does not have home control, is found living in the companionship of wrong-doers; is guilty of petty crimes; and in general is tending to become a criminal.

If the parent or parents are not able to require the proper conduct on the part of the delinquent child; or, in case of the dependent child, cannot, or will not, and cannot be made to support it, as a last resort the court can take charge of the child and place it in the care of a probation officer or commit it temporarily to some institution to be cared for as a state or county charge.

These laws must all be thoroly understood by the school authorities in any Illinois city that attempts to make the schools reach the dependent and the delinquent children in their home environments.

Someone may say at once, is there not more danger of breaking up homes than there is hope of building them up by the enforcement of these laws? Let me say at the beginning that above all things, the school must stand for the unbroken home. Nor do we believe that it is right to think that all homes can in any sense be ideal homes. It will take generations for the evolution of even a common type of a home out of some homes, yet these types of homes that are only a shade better than the brute prepares for its offspring, must be protected in the possession of the children, and the touch of the school must be an inspiring touch, rather than the hand that would snatch away the children to train them in a higher type of a home or institution.

But we must remember that death does not respect the populous home of the poorest-paid day-laborer; that from this home the father or mother, or both, are sometimes taken; or that the bread-winner is striken with a wasting, lingering illness, and that as a result want comes in. And that in every city there are a few children whose parents in some cases care so little for them, or in other cases have so little power of control, that some controlling force outside the home must be exercised to hold back these children from criminal lives and give outlet to their energy in lives that will fix habits of useful activity. It is not the vengeance of the law but a labor of love that is the keynote in all this work; but the fact that there are good laws under which the few extreme cases can be reached makes the labor of love possible in the many cases.

Six years ago there was no systematic effort made to look after the dependents and the delinquents by the school authorities. When children, and especially those of the delinquent type, dropped out of school they were largely left to themselves. At this time the superintendent stated to the board that there was need of an attendance officer to assist in securing the attendance of

many who should be in school, but were not. At first the board questioned the value of such an officer, but finally granted the superintendent's request.

The officer's work soon commended itself to the board so strongly that the board would as soon think of doing without teachers as doing without an attendance officer.

About that time two boys, who were dependents, and had also become sadly delinquent, were brought before the county judge for delinquency. The superintendent of schools petitioned the court to send the boys to the Glenwood Manual Training School for Boys, a private school to which the law of the state gives the county judge the right to commit dependent or delinquent boys entailing on the county from which boys are sent an expense of ten dollars per month for each boy committed. The judge had never before been petitioned to make such a commitment and hesitated, fearing the county board of supervisors would not approve the expense. Finally the judge asked the superintendent to consent to his sending the boys to the State Reformatory, but the superintendent said "No." The judge then said he would send the boys to the Glenwood School to remain there until one month later, when the county board of supervisors would be in session, at which time he wished the superintendent to present the case to the board of supervisors. The superintendent agreed to this since he hoped, if the boys were once placed in this school, the supervisors would have too much heart to take them from there to the reformatory. A month later he met the supervisors, thirty-five in number, and was given opportunity to plead the boys' case. When he had finished speaking a number of the men spoke out and said: "You have won your case." But action was referred to a special committee and the superintendent did not feel that all was settled, so said to one of the committee to which it was referred, that if there was danger of the committee's not passing favorably on it, to phone to the superintendent's office and he would come at once to the courthouse to talk with the committee. Two days later he was called to meet the committee. He pleaded with them to give the boys a show and not to send them to the reformatory, but all to no purpose. Two of them were from the country districts and did not believe in wasting the county's money on boys. The case was lost; the boys remained at the school doing finely for five months when they were transferred to the State Reformatory, all for the sake of saving the second wealthiest county in Illinois $240 a year.

About six months later the case of two other boys came up for a settlement of some kind. They were not bad boys, but boys, for a time at least, without a home. The drunken, beastly sot of a father had been committed to jail for non-support of his family, and after being there for sixty days was perfectly willing to continue to live at the county's expense. The mother's health had failed so she could no longer wash or work; in fact, she herself had become an object of charity. She was anxious to find some home where the boys could be cared for until she recovered sufficiently to help make a home again. No one wanted the boys. The only possible opening for them other

than the street or county infirmary was the Glenwood School, but how to get them there was the problem. The matter was presented to the Associated Charities by the superintendent of schools. Two of the most influential men in the city, who were interested in the charity work of the city, said that they would go with the superintendent, if he would again make a plea before the board of supervisors. This was done. He spoke to the entire board and again to the committee. His plea was granted, and from that day to this, the county judge has been one of the most helpful, interested in a real heartfelt way in all cases that have come before him. He said to the superintendent, "I wished you to educate the supervisors, now you have done it." From that time to the present he has never brought up the matter of expense to the county, when it has been necessary to dispose of an extreme case, nor has the board of supervisors ever offered an objection. While extreme cases are very few, relatively speaking, the certainty that the school authorities can appeal to the court for help in these cases, prevents the possibility of many cases coming into the courts. School authorities in Bloomington, Ill., have during the past six years come into a close working-system with the Associated Charities, parents' clubs, the city physician, the visiting nurse furnished by one of the city's endowed hospitals, and the courts, in trying to help the dependent and the delinquent children in their home environment. The school has been the center from which radiates the influence or energy that calls upon these other agencies to assist in trying to make the best possible conditions for the child. In a city of thirty thousand, where ward schools do not enroll more than six hundred pupils each, it is possible for the principal, with the aid of the teachers and the attendance officer, to know the home environment of almost every child; and the superintendent, with an interest on his part can know the home surroundings of all the most unfortunate cases. He can know these so that by devoting a very small part of his time to a consideration of them he can advise as to the best that can be done. A very few minutes from time to time keeps him in close touch with all the unusual cases that come up to be passed upon. Court cases are called on Saturday afternoon. The truant officer is largely a friendly visitor and is in most cases, so recognized.

There are parents who have no love of offspring. Two or three years ago the attendance officer was called day after day to look up three boys all from one home, and no one of them over twelve years of age. Finally he reported the case to the superintendent. This report was, that the mother was sick in bed, had six children with her, these three boys being the oldest; that she had been divorced from her husband but three weeks, and that they were dependent on charity for what they had to live on. The Associated Charities knew the case well and gave the same report. These three boys were on the street all the time, when not in school, and were at school only when taken there by the attendance officer. They were fast taking on the worst elements of street life. On the advice of the school authorities, as soon as the mother was able, she brought the boys before the county judge

to have them placed in a home of some kind. The St. Charles Home for Boys was the one in view. They were beautiful children. The mother wished to part with them only until she could be so situated that she could take care of them. At the request of the superintendent of schools, the judge declared the children county charges, thus making the county responsible for their control, and he appointed the woman superintendent of Associated Charities, probation officer. The children were permitted to remain with the mother, but subject to the probation officer. The superintendent and the judge advised, and the mother so desired, that the oldest of the three boys be placed in a good private home for the school year, if such a home could be found. Some one connected with the school found a home for the boy where he remained till the close of the school year. From this time on the boys were off the streets and regular every day in school. The mother as she grew stronger, did sewing and, with some little aid from her friends, made a living. The father was wholly worthless. One Sunday, the following spring, a man called at the superintendent's home and asked to speak with him. He was an ill-looking object. He said,

> I am the father of the three boys you and the Associated Charities looked after in court. You understand that my wife left me because I got drunk and would not support them, didn't you? I want to tell you that it is not so, that the only trouble we ever had, was about raising children. We've had nine. The oldest one is living with some people in another county. No, sir, it was not because I got drunk and wouldn't support them. It was all about raising more children. She said she wouldn't raise any more and I told her, we'd have all the Lord gave us, they wasn't idiots and was good-looking, and if we couldn't raise them, somebody else would. That is just all the trouble.

No love of off-spring, no parent responsibility. Not even a brute would so forsake its own.

May I contrast with this another home: a drunken father, an illiterate, dirty mother, a home almost as unkept as a hog pen, yet the mother-love strong and the father-love still burning; a large family, none of whom among the older ones had received any good from attending school. George, twelve years of age, the boy of whom I am speaking, had entered the public school this particular September, had remained there but a day, when he left the public school to enter one of our Catholic parochial schools; but he soon dropped out of that school, and filthy and unkempt was becoming one of the street gang made up of a criminally inclined class of boys beyond the compulsory school-age limit. The school attendance officer called at the home and talked with the parents explaining to them that the boy must attend school and that if they did not keep him in school, and away from the companionship of depraved old boys during school hours, it would be necessary to compel them to do so. The priest of the parish school talked with the parents and tried his persuasive powers, but all to no purpose. Teachers, attendance officer, and priest, were alike unable to cause the parents to act. The priest finally said he could do no more. The public-school authorities (superintendent) had the parents brought before the county judge to show cause for not taking

proper care of the boy. It was a revelation to the parents to really know that the school could call upon the judge and that he could even take their child away from them because they did not properly care for him. "Good Lord, Judge," said the woman, "you don't mean to say you can take my child away from me when I haint beat him? I didn't believe you could take a child away unless I beat him. My boy's sick, he aint able to go to school." The mother pleaded for the possession of her child and no one wished to take her child from her but to bring her and the boy's father to understand that they must care for the boy. The boy was not strong physically and needed better care than his people were giving him. The physician who had attended him a half-year before when he had had a serious surgical operation performed, was present in court to testify that the parents' neglect was the cause of his then delicate condition of health. He also stated that the home was not a fit place for the child, that he was not properly provided for; that the boy had a rupture and should wear a truss; that the truss would cost only one dollar and a half, yet, notwithstanding the father made good wages he and the mother preferred to spend it for liquor and let the boy suffer for want of a truss costing one dollar and a half. The judge made these people understand the school's power in the case and finally told them that at the request of the superintendent he would give them an opportunity to do better. The father said he would rather give up his drinking than to give up his boy. Then on condition that the parents at once secure a truss for the boy, and that they keep him properly clothed and in school every day, the judge permitted them to keep the boy; but he appointed the public-school probation officer with full control of the boy. The parents said they preferred the boy to re-enter the public school. They got the truss for the lad, put him in school, kept him well clothed and clean, and in school every day during the year.

A few weeks after the boy's case had been arranged, the superintendent met the boy's priest and the priest said he thought a mistake had been made, that the boy should have been taken from the parents and sent to some home; but the superintendent thought not. The latter part of the year the priest and the superintendent met again and talked of the boy. When the priest learned that the boy had not missed a day from school, was well clothed and clean, he said: "You have done the right thing, I'm sure you have." Not long ago the father met the superintendent on the street, tipped his hat and smiled. The superintendent smiled back and said, "You have done well by the boy." The father thanked him while his face beamed with a feeling of renewed self-respect.

The boy was their boy and they had a right to him; but the state thru its officers had a right to demand that the parents do their best by the boy, not that they do for him what would be the best for some other parents, but what would be their best. And the school was the only center in the community sufficiently interested in the boy to bring this about.

As the work is organized, it is very easy to call on the city physician or the

visiting nurse as may seem best. The principals can secure the assistance of either of these officers at any time by calling over the phone.

A family had lately moved from a neighboring city into one of the poorer wards. The two little girls had been in school a few weeks when they dropped out. The manner of the children was such that the teacher and principal thought there must be trouble in the home, or they would be in school, and as they lived only a few blocks from the school the principal visited the home in a friendly way instead of sending the attendance officer. She was kindly received and found both the girls and the mother with sore faces and as they said, sore heads, too. The home was a poor home and poorly kept. The mother did not know what was the matter with them and hoped the children would soon get well and be back to school. The principal won the mother's confidence and explained that she could send a woman who could tell them what to do to cure the sore faces and heads, a visiting nurse who often helped the school children in their homes when the mothers did not know what ought to be done. The mother was pleased to have her come to their home. The principal sent the visiting nurse to the home. She found the mother and the girls in bad condition, sore heads and sore faces. All as the result of vermin lice in the heads. She directed them how to clean up; took the proper remedies to them and followed up the work, until the heads were free from vermin, and heads and faces were healed, and the girls properly cleaned up, were returned to school. The nurse gave some very wholesome lessons to the mother and directed in cleaning not only their heads but the home. This mother was grateful to the school for the help of the nurse.

Some one will say, that this mother must have been a good-for-nothing kind of a woman, or she herself and her children would never have been in this condition. Granted that this is true, nevertheless she was a mother and her children were school children; and the home itself a delinquent home. The object of this paper is to show an attempt on the part of the school to touch the dependent and delinquent children in their home environment for the uplift of the children.

The visiting nurse has been very helpful indeed. She enters the home in a way that the city physician cannot and wins the confidence of the mother and helps her to better care for the little ones. But did not the school principals have the understood privilege of calling on her, many cases that need her assistance would never be known to her.

In some instances where there is every reason to believe that the child is being kept out of school and permitted to roam the streets, the parents claiming that the child is not in good health so cannot be sent to school, parents from whom it is not possible to secure a physician's certificate, without going into court, as they have no family physician, the simplest way out has been to ask the city physician to investigate and phone the attendance officer. This invariably brings the children into school to stay, as the parents know that

between the city physician and the attendance officer there is no longer a possibility of escape on the plea that the child is sick.

Now and then there are homes so immoral that the children of the schools need to be protected from the child from such a home and the state owes it to the child to protect it from the blighting effects of its own home. As an instance, and we have had a number of somewhat similar ones, we had a little girl just past her ninth birthday, a member of the first primary grade, her mother a fallen woman. During the summer following the child's ninth birthday, a young man twenty-five years of age had unpardonably sinned against this child again and again. The man was finally given a jail sentence and the little one left with her dissolute mother to roam the streets at night with no protection. When school opened in September the child entered one of the primary grades in the second half of the first-year work. Then came the question, Is it right for this child with all her knowledge of evil life to be placed with the little ones whose minds were free from the taint that comes from such a life as this child's had been? but if not, what should be done with the child for her good? The state owes this child protection just as much as it does other more favored children. The superintendent petitioned the court and had her placed in one of the state schools where for the first time in her life she would be free from the destroying environment of her own home. Cases of this type are rare, yet in even a small city they come again and again. Some one may ask if this does not tend to break up this home. I grant that it does, but plead that every child is born with certain rights vouchsafed it by the state, and that school influence, if no other, has a right to ask that the child be protected even from those who by nature should be its protectors.

It had snowed the night before to the depth of five or six inches. A gentleman, late in the afternoon, met the superintendent of schools and said to him that two little girls, one possibly seven, the other nine, had spent the forenoon at the county courthouse. He then called their names whereupon the superintendent said, "Yes, I know them and will send the truant officer to look them up in the morning."

The next morning the truant officer was informed of the case. Later in the afternoon the phone rang in the superintendent's office and as he listened an irate woman's voice came to his ear.

Say, that man was here today to see about my children and I want to tell you they was gittin' rubbers yisterday, that's what they was a doin.' You know they couldn't go to school without rubbers. That's jist what they was doin.' [Superintendent] Yes, but they should not take half a day to get overshoes, nor should they go to the courthouse to get them. They must be in school and it is your place to send them and it is your neglect of them that permits them to run about the city. The children must be in school.

After some further conversation, the phone was silent. Two days later, the phone rang.

Mrs. ———: Say, Mr. Superintendent, say, you know we had a racket the other evening. Superintendent: Oh, no, you had a racket, I didn't.

Mrs. ———: Well, say I sent them children to school. I want them to go all the

time and behave themselves. But I want to tell you that I do my part for them. I've got a big family, nine children, and it's a lot of work to take care of them. Now, Mr. Superintendent, I want the teachers to do their part for I'm doin' mine. You know, the teachers sent them home once to clean up. I suppose they can't have dirty children in school. But now let me tell you, when that teacher come and told me to git that stuff to put on their heads to kill the lice, I done it. Yes, and when that wouldn't take the nits off, why say, I went to another doctor and paid seventy-five cents for another prescription to take the nits off and put it on. Now, don't you think I've done my part? Now, say, Mr. Superintendent, we've got a phone now and won't you call me if the children don't do their work? Now, say, I want them to learn spellin' and readin' and writin'; and say, I don't want them to learn no paintin' and weavin' and sewin.' They aint no good for my children. Now I told the teacher that time she come to see me about the lice that I couldn't see how they was lousy for I combed their heads every Sunday morning. Now, I want them teachers to make 'em learn.

The superintendent of schools must be the organizing head of all the available forces in the community for the uplift of the dependent and the delinquent children; and when there is this concerted effort results can be secured that would not be possible in any other way.

The work need not burden the superintendent, if properly organized, nor take an undue amount of his time in a city of thirty thousand.

OUTLINE OF PLAN FOR HEALTH AND DEVELOPMENT INSPECTION OF THE PUBLIC SCHOOLS UNDER THE DIRECTION OF THE BOARD OF EDUCATION

GEORGE L. LESLIE, DIRECTOR OF SCIENCE DEPARTMENT, CITY SCHOOLS, LOS ANGELES, CAL.

PHYSICAL EXAMINATION OF TEACHERS

A thoro physical examination of all candidates for teachers' positions and periodic examination of teachers in service.

Teachers to be told of their own physical needs and the relation of their vitality to the vitality of their pupils.

PHYSICAL EXAMINATION OF PUPILS

A thoro physical examination of every pupil upon entering school and periodically during school life; these examinations to be made by principals, teachers, and school physicians working in co-operation.

Principals and teachers examinations.—Eyesight and hearing; visual and aural fractions; school indications of defective eyesight, hearing, or other sense development.

Indications of adenoids; enlarged tonsils; condition of teeth; spinal curvature; chest development.

Indications of defective brain development and mentality.

Reaction time and strength; imagery; memory.

The physiological machinery of the pupil and the way he does his work.

Signs of excellence, of degeneration.

After the principal and teachers have examined and reported as far as they are able the examiner will further examine each schoolroom and give whatever help may be necessary to the teacher and school. Special cases to be sent to anthropometric and child-study laboratory for special examinations.

MEDICAL EXAMINATION OF PUPILS

Anthropometric examination—as outlined at present for the Los Angeles schools.—Development data and tests; nutrition; cervical glands; cardiac diseases; skin diseases; deformities of spine, chest, extremities; defective vision and hearing; defective nasal

breathing; defective teeth; defective palate; hypertrophied tonsils; posterior nasal growths; chorea; epileptic attacks; extreme nervous conditions; defective conditions sufficient to bar pupils from regular schoolwork; sex functions; contagious diseases (in connection with City Board of Health).

GENERAL DIRECTIONS

Teachers will classify their pupils as to health and development, exceptional pupils to be separated into special groups.

To aid in this work psycho-physical examinations of exceptional pupils to be carried on as far as the work will permit at the anthropometric laboratories.

Pupils too defective to be wisely retained in the public schools to be segregated and assigned to special schools for defectives.

Principals, teachers, and examiners to discuss subnormal and backward pupils, and otherwise exceptional pupils, in special meetings.

Help and information to the parent to be brought about thru the child-study circles and at special meetings.

Notices of all defective conditions of pupils requiring help to be sent to parents, together with such additional information as may be advisable in securing the co-operation of parents in these matters. Parents to be referred to their own physicians.

The establishment of a "follow-up" plan to insure proper care of these pupils where parents do not take action to correct physical defects and attend to physical needs.

Parents desiring special medical information or help, and pupils requiring skillful treatment who have not received such aid or wrong treatment to be referred by principals and teachers to the director of the department who shall act in co-operation with a special reference medical board to give the pupils proper care.

The establishment of a reference medical examination board to be selected from the best physicians of the city, to serve without pay.

To this board shall be referred all cases requiring special adjustment between school examiners and practicing physicians of the city. All cases requiring special care and help which have not received such help thru the aid of the physicians employed.

Further, this board may act as an advisory board to the board of education and school examiners in all matters pertaining to health and development of pupils, and in matters of public hygiene in which the schools may be concerned.

CONTAGIOUS DISEASES AND PUBLIC HEALTH

All matters pertaining to contagious diseases and to the public health to be in charge of physicians and nurses appointed by the board of health, with whom principals, teachers, and examiners will co-operate in all possible ways.

The above plans are being carried out, to a certain extent, in the Los Angeles city schools.

DEPARTMENT OF PHYSICAL TRAINING

SECRETARY'S MINUTES

FIRST SESSION.—TUESDAY MORNING, JULY 9, 1907

The department met in Oak Hall, Fraternal Brotherhood Building, at 9:30 A. M.

In the absence of all of the officers of the department Mr. Taylor, of California, was elected chairman.

"How Can Physical Training be the Instrument for Making Theoretical Teaching of School Physiology of Practical Value for School Life?" was presented in a paper by William W. Hastings, instructor in anthropometry and physical education, International Y. M. C. A. Training School, Springfield, Mass.

SECOND SESSION.—THURSDAY MORNING, JULY 11

The department met in Oak Hall, Fraternal Brotherhood Building, at 9:30 A. M.

In the absence of the officers, John S. Welch, deputy superintendent of schools, Salt Lake City, Utah, was elected chairman and Harry M. Shafer, principal of State Normal School, Cheney, Wash., was elected secretary.

"The Relation of Music to Physical Education" was discussed by Miss Martha J. Johnson, director of physical education, Salt Lake City public schools.

"What Can Physical Training do for the Teacher" was presented by Harry M. Shafer, principal of State Normal School, Cheney, Wash. Discussion followed by A. H. McClure, superintendent of schools, Yuma, Ariz.

The Chairman appointed as Committee on Nominations,

William W. Hastings, of Massachusetts Harry M. Shafer, of Washington.
Martha J. Johnson, of Utah.

The committee nominated the following:
For *President*—William W. Hastings, Y. M. C. A. Training School, Springfield, Mass.
For *Vice-President*—Clark W. Hetherington, University of Missouri, Columbia, Mo.
For *Secretary*—Martha J. Johnson, director of physical education, Salt Lake City, Utah.

The report of the committee was adopted and the nominees were on motion elected officers for the ensuing year.

The department then adjourned.

HARRY M. SHAFER, *Acting Secretary.*

PAPERS AND DISCUSSIONS

HOW CAN PHYSICAL TRAINING BECOME THE INSTRUMENT FOR MAKING THEORETICAL TEACHING OF SCHOOL PHYSIOLOGY OF PRACTICAL VALUE FOR SCHOOL LIFE?

WM. W. HASTINGS, Y. M. C. A. TRAINING SCHOOL, SPRINGFIELD, MASS.

The most insistent demand of modern science-teaching is for practical and interesting laboratory methods. Instruction in biology for school grades in the most progressive quarters no longer consists of an introduction to the analytic survey and classification of plant and animal life comprised in the old

college course; nor has it everywhere become an abridged microscopic study of structure and function in the laboratory, as embodied in the new college or university course. It consists rather of a thoro survey of the trees, flowers, insects, birds, and other animals of this country, beginning with those of the immediate vicinity. Whether under the name of nature-study or biology, the attempt is made to delineate in general terms the habitat, habits, and function of each common plant and animal in the general economy of nature.

The object of this method of teaching is to place the growing mind en rapport with its environment, to make everything about it significant. A plant or insect may be noxious or beneficial to man, may be of commercial, practical, or aesthetic value. Let the child be taught not simply to relate everything to himself, but to all other things about him; teach him the function of each.

It is a well-known principle that success in a commercial enterprise at each succeeding stage of development is dependent upon the most perfect realization of inherent values, and upon utilization of all the natural advantages of location, by adaptation of methods which shall develop these values. The same principle applies to life in general. The man who sees everything in sight and sees with the right perspective does not require a rich uncle to give him a "pull;" he meets the conditions next to him, makes his own place, and rises from place to place.

The child who is trained to look with a clear eye into the values of the natural world about him is the father of such a man. For this reason in part, at least, the majority of leaders in the world of business and letters are country-bred. The country boy grows up to work with his hands, to reason from cause to effect, to forecast results; he is both utilitarian and idealist, executive and thinker. Such men are in demand. The great question of the day is how to grow more of them.

If the knowledge of practical matters and things in the environment of the country boy mean so much to his development, how much more valuable should an intimate knowledge of himself prove to him. Games, sports, and manual labor during youth and adolescence are responsible almost exclusively for the staying power and physical courage of these leaders of men and movements. But only a few are developed in this school of nature, fewer by our "hit and miss" method of applying gymnastic training. Why not give the child as much interest in his own organism as in that of the frog, the angleworm, or the clam, and secure this interest by those methods which are approved by the exponents of nature-study? Why not have him study the animal called boy, in action, in evolution, as we have him study the caterpillar and butterfly? It might prove an incentive to development out of the horny chrysalis of dirty hands, tangled hair, torn trousers, and general air of defiance or indifference to the influence of the character machine which is termed education.

The scope of school hygiene in the main is limited to those agencies which make for the health of children in masses, to the provision of proper environ-

ment in the schoolroom. Personal hygiene is left to be applied mainly to adults, and to be studied by adults. But the period of life which is most plastic, the period when muscles and nerves are grown, when what is termed vitality, reserve force, constitutional strength, etc., is principally determined, is naturally the period when the laws of health should be taught most effectively and inforced most rigidly, for the result is the forming of permanent and life habits. And how to keep it in order, should be made the most interesting study taught during childhood.

On the contrary the average child knows more about the electric car, steam engine, automobile, telegraph, telephone, or almost any intricate but common modern invention than about his own body; most about the manufacture of cotton goods, cutlery, machinery, etc., thru books, drawings, illustrated lectures, and systematized visits to factories than he does about the manufacture of various food products into muscle, nerve, and vital energy; more about the physics and chemistry of various industries than the laboratory of his own body; more about photography, art, and aesthetics in general than about the laws of development by which perfect symmetry, the delight and inspiration of the artist, is attained. In brief, he has been furnished with that intellectual equipment which has immediate commercial value, and which prepares for the ordinary social amenities; according to common acceptance, "he fills the bill," "knows the ropes," "is up-to-date," etc. But he may not be an original thinker nor have the native form of character or of body to win in the long run of life, he has been cast in a mold, rather than he has hewn out his own character from the rough; he has been made initiative rather than creative in his development; he has cultivation but not culture; civility, but not the capacity for strong friendships; gentlemanliness, but not virility; he makes a fair follower, but never a great leader.

General debility and indecision of character are close akin. The best cure for both is hard muscular work—football, wrestling, running, mountain-climbing, sawing wood, shoveling coal, anything vigorous, for the demand is put upon the brain for the exercise of will power as well as upon the storage tissue for kinetic energy. There is but one cure for weakness, nervous or muscular, and that is normal physical activity.

To the physical director it has been given to strengthen the bodies of our children; to him also it should be given to teach physiology, to teach what their bodies are, how they grow, and why certain exercises and habits of life are wholesome. This is essential to both physiology and physical education from the point of view of securing interest in both, for by the correlation of the two each takes on new life and value.

Anyone who has taught botany to children will agree that it would be poor policy for the teacher to turn over the out-of-door excursions and practical observation of flowers and plants to some one else and to retain only the study of classification. It is equally inane for the teacher to let the physical director have all the interesting laboratory work on the children's bodies and to retain

the teaching of theoretical physiology. It is a pedagogical waste to divorce the two when each doubles the interest in the other.

It is a simpler matter to become convinced that the physical director is inherently best adapted to teach school physiology than it is to outline the scope and method of the teaching, and to plan such reorganization in the teaching-force as will make this practicable. In most city schools where physical training is carried on, the physical director trains the teachers in the exercises to be given by teaching the classes in their presence. He should also instruct the teachers in the best methods of presenting physiology to the children in connection with their physical exercise. Illustrations should be taken from the daily happenings connected with their gymnastics and athletics.

Physical training can become the instrument for making theoretical teaching of school physiology of practical value for school life.

1. By a change in the supervision of the teaching of physiology, by changing the responsibility for the teaching of the subject from the many individual teachers and placing it on the physical director.

2. By making the teaching of physiology concrete and personal; by teaching not the physiology of the human body, but of the child's own body.

3. By teaching both functions (physiology proper) and the results attained by normal function in growth and development, that is to say, by laying the emphasis on the physiology of growth.

4. By teaching the relation of sleep, wholesome food, regular habits, and normal muscular activity to perfect development by combining the study of personal hygiene with that of physiology; by giving both the motive for living in a wholesome way, and the means for personal attainment of health and vigor, at one and the same time, and thus securing a permanent interest in health as something desirable.

If any discussion of the foregoing statements is needed, let me say further under the first heading, that teachers, as well as physical directors soon find that the thing which gives most influence over the life of the child is immediate personal suggestion and help. This may take the form of advice to the strong as to winning athletic ability, or to the weak as to the correction of defects in development; the result is the same, you are now in a position to teach that child physiology and hygiene, because a bond of sympathy with the teacher is established, because the child has found a use for the information given; you are in a position to maintain respect when you restrain from excessive specialization in games or athletics not adapted to the age of the boy or girl, and from forms of gymnastics also ill-adapted to a given nascent period.

Under the second heading, it may be well to recall that the interest in growth and development is universal among children. They look forward anxiously to becoming men and women; long to be actually grown up. The little girl has spells of strutting about the halls of her home, the lawns, and the streets with one of her mother's old dresses trailing along behind; the boy apes his father's ways in a manner equally self-important; the girl early shows her taste for the graceful and beautiful in form and color, the boy his admiration for bigness, symmetry, and strength.

This interest in personal development can and should be turned to a good

account. The periodic physical examination of children stimulates and increases this natural interest, if copies of the measurements are given to them to take home; it also stimulates teachers to observe physical condition and defects. Only a few vital measurements should be taken, but the examination should occur at least twice a year. It tends to promote emulation in physical development and strength, which in my judgment is much more wholesome than rivalry for percentages in class grades. It tends to call the attention of teachers of physiology to the whole subject of growth and development, and hence to the periods when overpressure thru school work is especially dangerous—namely the period of the second dentition and that of pubescence.

The third and last statement, with reference to the combination of the study of personal hygiene with that of physiology is not new in itself, but a change of method or of emphasis is much needed, one which cannot be secured by the simple statement of it. There is involved in it the whole revision of the point of view of the teacher by his or her study of the practical and essential in physiology and hygiene rather than the theoretical. The point of view is perhaps best attained by the combined study of such a physiology and hygiene as Hough and Sedgwick's *The Human Mechanism*, and Tyler's new book on *Growth and Education.*

The correct purpose of the teaching of elementary physiology has not been better stated than in the introduction to Hough and Sedgwick's book:

> Avoiding that form of physiology which looks chiefly at the organs and overlooks the organism, we have constantly kept in mind the body as a whole, in order that physiology may become the interpreter of the common phenomena of daily life, and find in hygiene and sanitation its natural application to conduct.
>
> We believe with Matthew Arnold that "conduct is three-fourths of life," and that this is no less true of the physical than of the moral and the intellectual life. We therefore make no apology for fixing upon this as the keynote of this work, and the right conduct of the physical life as the principal aim and end of all elementary teaching of physiology, hygiene, and sanitation.

Because of the presence of a few who will be inclined to doubt the advisability of giving over the teaching of physiology and hygiene to the supervision of the physical director, as outlined in this paper, it is a source of regret that time does not suffice for the discussion of the great breadth of this field and function. Let me quote simply a few sentences from a recent paper entitled, "The Physical Director as a Hygienist."[1]

> The study of all studies for the physical director is vitality, racial and individual. The modern tendency to congestion of population in our cities means racial degeneracy. This is proven by all comparative statistics of crime and disease for the city and country. It is clearly evident of statistics of human development in this country, in England, and in Europe. The physical director stands almost alone in his attempt to check this racial degeneracy. The sooner we swing away from the conception of the director as a leader of gymnastics or a director of athletics and grasp the ideal of him or her as a hygienist and the right-hand man of the practitioner of preventive medicine, the sooner will our work take on real power and significance. Our business is not to make gymnasts and athletes,

[1] Published by The American Gymnasium Co., Boston, Mass.

but to make men and women, to give them reserve force and staying-power for their life work.

Physical education as a science is a department of hygiene. It is not an end in itself but a means to health and vigor. There is no branch of hygiene with which we are not concerned, no preventive agency which is not our function to use.

THE ORGANIZATION AND ADMINISTRATION OF ATHLETICS

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There is no more serious problem before educators than that of athletics. Articles written on the subject, tho numerous, are fragmentary in character, and give little insight into the complexity of the problem. Complete consideration would go rather exhaustively into three topics, viz.: (I) The nature, functions, and values of athletics; (II) The evils of athletics and their evolution and cause; and (III) The solution thru organization and administration. Hence, we propose to sketch briefly the three topics above, in order to place the questions involved in perspective.

I. THE NATURE, FUNCTIONS, AND VALUE OF ATHLETICS

There are two and only two classes of athletics: amateur and professional. The first is the flower of one of the most fundamental of animal and human instincts—play; it is the product of the play impulse, with social rivalry added. The second class grows out of an entirely different instinct, the instinct in human nature that creates an interest in spectacular contests, the willingness on the part of some to give favors for the satisfaction of this interest, and the willingness on the part of others to serve as a spectacle-maker and receive the favors. A sharp distinction exists between the motives in the play of boys in their early teens and the motives of professional baseball players, vaudeville acrobats, and prize-fighters. In the later years of youth the lessening gap in power for performance between the youth and the adult professional gives many opportunities for confusion. The contests of the former become interesting to the spectacle-lover. The boy's motives in play are likely to shift. Thru the spectator's desire for amusement and the boy's susceptability to the influence of the spectator, all athletic activities tend to be carried on into exhibitions for the amusement of the public with many unsavory features which often hide the meaning of the boy instincts which create athletic plays.

Athletics, then, are created by the play impulse. They are a phase of play, the more strenuous end of play, created by youth's motor-social and self-testing instincts, and play is nature's education. Intellectual power, prolonged infancy, and play all evolved together and are interdependent. During the growth and development of the infant, motor activities are chiefly play activities. But for play there would be no growing up. Thru play nature educates mentally and socially. Education, then, comes largely thru discipline in action, experiment, and experience. In athletics, boys learn their own powers and

the power of others, their own rights and the rights of others. They gain their first lessons in social intercourse, in human nature, and in "the rules of the game." They are socially disciplined for unsocial acts; they give discipline. Among college men, the moral and social training thru athletics, *when properly administered*, is the most intensive of any influence in college life; it lasts thru life. There is no higher physical morality than that involved in "training;" it means temperance in all things, and an intelligent adaptation according to individual peculiarities of hygienic forces. Sportsmanship is the application of the Golden Rule to the ethics of sport. Determination, grit, self-control, and all the character elements demanded in social competition are tested.

Athletics are the natural play activities of adolescents and of the years of early manhood. Formal plays or athletics give larger opportunities for an educational discipline than free play. Athletics carry, therefore, all the deep significance of play for functional development, and for a mental, moral, and social discipline. They are a phase of the technique of physical education. Physical education, as a social or educational effort, takes over nature's methods. Athletics and gymnastics are co-ordinate in educational aims; no rational physical education can be built on either alone. The fundamental functions of physical education are the physiological development and motor development of the child during growth. To this must be added the moral and social value of play, especially of strong motor plays. The mere fact that physical education, as a science, must take over nature's method of physical education, forces physical educators to become leaders in morals and social conduct.

Physical education is but a phase of a propaganda for the normal hygienic, social life of a people, of which preventive medicine and the playground movement are also a part. With the development of society, sanitation, playgrounds, physical education, and athletics become more and more important. In the normal expression of the boy's athletic impulse, it could be readily shown that not only boys, as undeveloped men, but parents and society as well have profound natural rights.

Taken in its essence, then, and stripped of evils which we shall show are unnecessarily associated, the athletic instinct is the most profound educational force in the life of boys. Considered biologically, physiologically, sociologically, ethically, or from any scientific view-point whatever, the meaning of athletics is educational. There is no conflict between this view-point and that of the boy. The boy seeks sport and gets educated. Educators should promote and guide his sport and see that he gets this education.

The only other view-point is that of the spectator, the amusement-hunter, the sport, and the athlete who becomes the product of this interest. Administered from this latter view-point, athletic activities, whether of school or club, are on the same level as horse-racing, professional base-ball, vaudeville acrobatics, and aerial wire performances, prize-fighting, etc. There are no objections to professional athletics or professional athletes in their place, but the interests in this field are absolutely blasting to any educational purpose in athletics.

II. THE EVILS OF ATHLETICS

In considering the evils of athletics a distinction should be made between the elemental tendencies to evil found in all social motor plays, and the secondary evils which come with particular lines of development.

The elemental tendencies to evils are three:

1. There are the tendencies incidental to any pleasurable activity; the tendency to overindulgence, pleasurable dissipation, and for older boys, the wasting of time. In this there can be no special legitimate criticism of athletics as an activity but rather a criticism of a weak tendency in human nature.

2. There are the dangers incidental to all active physical activities; the danger of injury. Naturally the more strenuous the activity the greater the chances of injury, unless training enters to increase resistance.

3. There are the tendencies incidental to all social play; the tendency to act unsocially.

Unsocial acts are the serious evils in athletics. Bad manners and cheating are common in spontaneous play as well as in a complex athletic development. Dishonesty in organizing teams appears with permanent organization and the development of rivalry.

A new tier of evils, in addition to increasing the volume of bad manners and dishonesty, appears with the spectator. The mere presence of the spectator affects the player and the coach. The player, according to his temperament and stage of development, becomes self-conscious and shrinks from observation or "goes in" for approbation. The spectator tends to eliminate the undeveloped, the awkward, the modest and to give a new stimulus to the developed. The coach under the same influence feels it to his advantage to aid in this movement. These tendencies work out to a logical conclusion in the specialization of athletics and the elimination of the many.

Again, the managerial function is influenced by the spectator. The attitude in arranging for sports directed by players themselves and supported by themselves is quite different from the attitude in arranging for the accommodation and pleasure of spectators. With the rise of the paying spectator and the manager, another tendency to evil appears: that incidental to the financial management of any public enterprise, the tendency to bad, or dishonest, use of money.

Finally the spectator evolves as a spectator. He influences not only the attitude of the player, the manager, and the coach; he influences himself. He becomes a partisan with partisan sympathies, which demand social satisfaction. To become a partisan in any contest is human nature. When a social group or institution is represented by a team, the group becomes partisan. *Here is the motive force behind the great development of intercollegiate athletics*, and the motive force behind the appearance of yet another evil, the abnormal intensification of the desire to win and *an exaggeratiton of the importance of winning*. An exaggerated partisan sentiment is the psycho-social soil upon which all the crimes of athletics have grown. The elemental tendencies to evil and the specialization are here repeated in ever-widening circles. This exaggerated partisan sentiment has hovered over all college athletics like black

menacing genii ready to rend the members of any administration that did not produce a winning team. Under the conditions that have existed, the bleacher crowd is a menace to the existence of sport as sport or as a means of education. In our colleges, the creators of what national sentiments and practices we have, is naturally found its extreme expression. Here have arisen those tendencies to exaggeration, commercialism, and professionalism, of which we have heard so much in recent years. That the conditions criticized do not exist in equal degree in all colleges is true; yet the atmosphere, the sentiments, the feelings, and the ideas that produce the conditions do exist potentially, no matter how conscientious or moral the administration. The philosophy upon which present-day athletics are conducted, has been passed on from the older colleges to the newer and weaker. In the forces producing the sentiments and the methods lies the secret of present-day athletic conditions.

The cause.—Now the trend of social evolution depends on a cause. The cause here is negative. It is due to the neglect, indifference, and ignorance of college authorities. Boys had to develop athletics without precedents, standards, or the guidance of deep-thinking, earnest men. Boys supplied the initiative, but they lacked educational or social perspective, and this educators did not supply. This neglect gave the opportunity for irresponsible characters to assume leadership. The evils of athletics are never initiated by the majority of students. In every college there are at least a few students who have no moral sentiment except fear, and who will resort to any practice to satisfy partisan vanity. That there are occasionally faculty men of the same stripe cannot be denied. On the other hand there are a few students whose instinctive moral sense is so keen that they need no guidance. Between these extremes stand the great mass of students to be swayed one way or the other according to conditions. There is a constant tendency for those who lack moral sentiments and all appreciation of athletics except as a spectacle to usurp control and promote athletics according to their own concepts: and the faculty has allowed them. As in politics, the better element withdraws until results bring moral revulsion and a partial house-cleaning. Neglect is the central factor in all our twisted American athletic development. Bad leadership has followed, and therefore a bad philosophy of athletics. All this could have been avoided and can still be changed by proper organization and administration.

III. THE SOLUTION OF THE PROBLEM

From what has preceded it is evident that (1) the *values* of athletics grow out of a fundamental instinct in human nature guarding a need for a physiological education; and (2) that the *evils* of athletics are largely the product of neglect and bad administration.

It is evident further that the more serious social evils develop in connection with inter-institutional contests, not in contests within the social group. The burden of the problem therefore falls upon inter-institutional contests and especially the more strenuous contests of the older boys or men. This *is* the

"athletic problem." Our consideration, then, will deal with the more complex phase of the problem in colleges and high schools.

Over the solution of this problem the school world is divided into three groups. (1) There are those who would go on as at present; (2) those who would eliminate all institutional contests; and (3) those who would reform present methods. The latter program is most generally favored. The question then is how can the tendencies to evils in athletics be eliminated or so reduced that the natural values may be secured? It should be put in broader form: how can athletics be organized and administered so that the natural educational values may be secured to all children of whatever age or sex or social condition and to all students in educational institutions, without the present evil influences? It is not enough merely to eliminate the glaring evils in the present organization, for that organization itself is the chief source of the larger evils. What is desired is to make athletics mentally, morally, and socially safe and profitable as well as physically profitable, and, in the process, make the very elemental tendencies to evil the basis for a practical educational discipline. The future of athletics as a phase of organized play and as an educational force depends upon the solution of this problem.

The solution of the problem will necessitate the creation, in the first place, of educational policies that will foster, stimulate, protect, and keep pure the athletic impulse, and associate with these policies further policies which, in their administrative operation, will perpetually check the action of forces creating tendencies to evil. In the second place, the solution will necessitate the creation of an administrative organization that can execute these policies.

We shall first consider the administrative policies, then the administrative organization necessary to execute the policies.

A. The Administrative Policies

Every question of policy that can be asked concerning the organization and administration of athletics depends ultimately upon the answer to two questions: What are athletics for, and whom are they for?

If we ask what athletics are for in a college or a high school, there are three possible answers or concepts, which we may formulate as follows:

1. They are solely for the pleasure of the spectator and the profit of the athlete who furnishes the pleasure.

2. They are for the pleasure of the spectator (especially the partisan sympathizer) and the pleasure and honor of the athlete. The partisan's pleasures include (*a*) the emotions in the skilled contest; (*b*) the satisfaction to partisan pride when victorious, including ideas of honor for the group; and (*c*) the social intercourse which the partisan expressions bring. Many of these elements of pleasure are also found in the first concept.

3. They are for (*a*) the profit of the boy athlete seeking pleasure, and achieving the organic and social results for which his athletic impulse was created; and (*b*) the social fellowship, sympathy, unity, and loyalty (where highly organized teams exist) among members of the team and the social group which the team represents.

If athletics are organized and administered on the first of these concepts,

there results what we call pure professional athletics. This concept has its legitimate place; to it there are no objections so long as it keeps its place.

If athletics are organized and administered on the third concept, "educational athletics" as we have defined them, are the result.

If athletics are organized on the second concept there results a class of athletics somewhere between "educational athletics" and professional athletics or just what we have today in many colleges and secondary schools. They are seldom truly educational; they are more seldom frankly professional. The tendency they take depends upon the class of characters dominant in the control of their organization and administration. There is nothing in this concept that is distinctly independent of the other two. In it there is nothing that does not logically belong to the first or the third concept. It is based on misguided notions, half-evolved sentiments, and incomplete logic.

If we now turn to the second half of the original question and ask, whom are athletics for? the answer will depend upon the position taken concerning what athletics are conceived to be for.

If the first concept is accepted, the policies will center in one position; "get the best talent possible" and satisfy the spectators. If the second concept is accepted, the desires of partisans and anxiety concerning questions of material for winning teams, will be paramount in the development of administrative policies, always with a danger of twisted moral standards. If the third concept is accepted, the only position that can be taken is: Athletics are for the education of all students irrespective of athletic skill or ability to make pleasure for spectators, to bring "honor" to the institution, or to satisfy the vanity of partisans. In other words, they exist for the same people and for the same reasons as any other "course" of work in the curriculum. This concept and its interpretation do not preclude for the spectator many pleasures included under the second concept, but it determines absolutely the primary point of view in the creation of administrative policies. If our two original questions with these various possible answers were presented to the assembled educators of the country, there would be but one vote—the third concept, educational athletics inclusively and exclusively. I have never heard a negative vote except among those, who, judging by other acts, clearly lack moral, intellectual, and social standard.

All questions of policy, modes of procedure, flow naturally out of the criterion contained in the educational concept.

1. *Place and functions.*—The educational concept determines the *place of athletics* in educational institutions. Athletics are for the education of students. We should organize their play, and secure this education. The protection of the boy's normal impulse for athletics must be the paramount consideration; perverting influences must be controlled. The partisan spectator may be present in advanced games, but his desires must be negatived. This protects not only the rights of the boy in athletics, but the rights of parents and society as well. Adjustment to the general aims and purpose of the school,

naturally flows out of these principles. Athletics are a part of education, not all; they have a right to their normal place, no more. The amount and intensity of the activities must be determined by the function of the play impulse and individual needs. There must be no dissipation or incapacitation for other work.

2. *Opportunities.*—The educational concept determines the policy in furnishing opportunities for participation in athletics. Each school must furnish playgrounds for athletic activities, as well as a gymnasium for gymnastic activities. The requirements will depend on the grade of the school and the age and number of the students. Naturally the highest requirements will be in the colleges, which will illustrate the principle. The college physical-training plant

should supply opportunities for physical training thru any line of athletics of interest to any group of students. A physical-training plant should give facilities for a large variety of exercises to suit all tastes and capacities and should represent large opportunities for large numbers. If athletics have any legitimate place in physical training and if physical training has any legitimate connection with the curriculum, I see no escape from this position. There is no more reason why a university should own and administer a gymnasium than own and administer an athletic plant upon which the student body is to be physically educated.[1]

3. *Organization.*—The educational concept determines the *policies in organizing athletic activities.* This is a phase of the wider problem of classification in physical education. Individuals differ in the vital capacities necessary to take part in various gymnastic and athletic activities, they differ in the motor skill required, and they differ in temperamental inclinations, all of which must be considered in organizing physical educational activities. There are also many temperamental and social factors influencing participation in play and athletics. The administration must recognize these influences and the differences between individuals; open opportunities adapted to different needs; rouse interest and give stimulus, encouragement, sympathy, and instruction. There are activities adapted to all. Educational success means participation by all. This requires many grades of organization.

As a part of this policy of organizing athletic opportunities for all, there is involved the policy in developing teams, especially inter-institutional teams. If inter-institutional athletics are to maintain a permanent and respectable place in college life, they must represent a selection from among large numbers of students engaged in athletics, *not* an organization for recruiting athletes from outside sources, which in no way develops the student body, but makes spectators of them. The "recruiting system" so freely used in colleges, must be repudiated. It is uneducational, wholly antagonistic to the broader aims of college life, unsportsmanlike, and even logically erratic and accumulatively uncertain in its sporting results. It develops nothing for the future; it corrupts the source of its own support. Recruiting breeds recruiting.

Under this head also falls, the question of *rules of eligibility* for inter-

[1] From *Analysis of Problems in College Athletics.*

institutional contests. Eligibility is simply a classification for fairness in competition. Between the professional and the amateur, the distinction is one of motives. Amateurism is the fundamental concept underlying educational athletics. All other rules have evolved in the effort to preserve inter-institutional athletics for legitimate students, and lately for undergraduate upper classmen. Eligibility depends on whom athletics are conceived to be for. The regulations attempt to preserve them for that class. Dishonesty concerning the rules of eligibility is the most destructive force in athletics.

4. *Games.*—The educational concept determines the policy in the *choice of games.* The games used in any educational institution must be adapted to the boys engaged in them, and to the functions of sport. Each game should be opened to all students physically vigorous. Any game that requires rare capacities is unfit. Football has placed a premium on large powerful men, thereby exerting corrupting influences. Furthermore, in such games the element of shock is too great for use except among the older boys, and where schools have expert guidance and facilities for thoro training. Games should be of such character that neither the intensity nor amount of work required, nor the mental states roused, are unfavorable to the intellectual functions of student life. For general use, games that require costly equipment should be avoided.

5. *Conduct.*—The educational concept determines the administrative policies concerning the conduct of students in athletics. Only by the systematic guidance and supervision of conduct can moral and social evils be eliminated and the moral and social values be secured. This effort should include all acts of athletes and students connected with domestic or inter-institutional contests. In domestic relations on the athletic field, in the dressing-room, and at the training-table, regard for a comrade's rights, language that is not offensive, the good-nature and harmony of good-fellowship, should be developed. On trips, while on railway cars and in hotels, conduct that will create a favorable judgment concerning the team and the reputation of the student body should be expected.

Education and discipline concerning sportsmanship should be vigorously pressed. Sportsmanship means fair play and manliness; it is the ethics of competition, and is of wide social value. For partisans it means good manners, the courtesies of friendly rivalry, honesty in the use of players, and manliness concerning the results of the game. The degree of sportsmanship exhibited by an individual is a test of his capacity for social civilization, for real gentlemanliness, for the self-control and breadth of mind of developed character. The severest test comes with "mucker" tricks on the part of opponents. Sportsmanship dictates "play the game and may the best man win." To be deliberately fouled or injured and not retaliate in kind, is the severest test to which a boy can be put; still such conduct is not uncommon where boys are properly guided.

The influences that flow out of conduct create the reputation of an institu-

tion and make inter-institutional relations profitable or vicious. It is evidence of serious neglect where an educational institution does not have a good reputation for sportsmanship. Games with such institutions result only in harm.

The educational concept determines the policies along other lines such as athletic finances but space forbids the consideration of them here.

B. The Administrative Organization

The above outline of administrative policies necessary to secure educational athletics indicates some of the qualities and powers necessary in an organization to execute these policies. Other qualities are suggested by the necessity of eliminating or correcting the tendencies to evil. Some of the factors exerting influences for evil, such as the professional coach, the student manager, the number of games, the character of games, the training-table, etc., can be eliminated by the command of a competent authority, or by a new administrative organization that leaves them out. Some of the tendencies to evil, such as those involved in the financial management, can be eliminated only by the direct supervision of a permanent responsible head. Conduct, sportsmanship, and proper inter-institutional relations can be secured only thru daily supervision, leadership, education, and appropriate discipline by an administrator with comprehensive authority. A proper attitude on the part of the public and the press can be secured only thru an educated student body and alumni; someone must head this education. Tendencies to secret professionalism can be counterchecked only by education, expert supervision, and a discipline that makes it unprofitable.

It is evident that students and the younger alumni have neither the educational vision, social experience, moral courage, technical knowledge, nor administrative skill to handle these larger constructive policies. An expert headship or director for this work is essential. He must have adequate capacities and adequate powers.

Of all men, athletic coaches, who are often anxious to secure such positions, are the least competent to administer the vital phases of the work. Success in this organization depends entirely upon whether the director is an educator, using athletics as a means for physical education and moral and social discipline, or whether he is primarily a sport, using the name and *esprit de corps* of the college for sporting purposes. Making the coach a member of a university faculty, and changing his name from "coach" to "professor," does not change his nature.

The logical title for this position would be the director or dean of the department of physical education. Granting adequate strength to the director, this organization, with all athletics under the department of physical education, furnishes the administrative machinery necessary for educational athletics, as well as a cure for all the evils of inter-institutional contests. It gives the director control of the athletic facilities and paraphernalia for educational purposes; it ranks inter-institutional contests as the final product of an educa-

tional system; it places the conduct of the coaches, trainers, and athletes under a responsible head; it gives a responsible authority for teaching or disciplining. On the other hand, it makes the administration of the department of physical education the most difficult in a college. Most directors rebel at the idea of being brought into a position where they can be held responsible for the success or defeat of inter-institutional teams. This defect, however, can be remedied by committees associated with the director.

A responsible headship, with adequate capacities and powers, is the only solution of the athletic problem. In small institutions it would be wiser to put in a man weak in technical athletic skill, but with ideals and large educational and administrative powers than one with talents reversed. Furthermore, in small institutions where the department is small, the director may have to be the coach, gymnastic instructor, manager, and all. If his vision concerning the educational work is clear and his courage sufficient, his work will be a success.

Space prohibits consideration of details in organization for management, instruction, care of plant, etc., but these items are of minor importance.

6. *Associations.*—Organization for the administration of athletics does not end with the organization within the college or high school. One institution is seriously affected by the standards of administration in rival institutions. High standards can be maintained by proper authorities, in spite of such influences but doing so creates local dissatisfaction. The remedy is inter-institutional organization. Uniformity of practice can come only in this way. Progress so far has been slow because we have had no national philosophy of athletics.

Regulations there must be to make contests fair. Each natural group, such as college, secondary-school, or grammar-school students, or club members, or different classes, coming together in contests, should be associated in organizations to solve common problems and should agree upon uniform practices that will be fair to all. The formulation of regulations based on principles involving the development of educational athletics requires maturity, experience, and educational vision; they can be formulated only by adults, educators, social workers, and men of affairs who think in terms of social forces.

Again, district associations are not sufficient. These need to be formed into national organizations. Districts overlap and the standards of different districts are seldom uniform. This fosters criticism and provincialism. National uniform standards accepted by all will give confidence and establish athletics on a dignified basis.

On organized play the national conscience is astir. If wisdom comes from association for the exchange of experiences and the discussion of problems, there will arise organizations outside of educational institutions for each group naturally drawn together thru social affiliations. For the highest usefulness, these groups must be unified into national organizations.

Then, a further step in organization is needed. Each of these national organizations represent a ganglion in the nervous system of an athletic evolu-

tion. Each receives impulses from its distal elements; each co-ordinates the work of these elements. Now, these separate ganglia must be co-ordinated by a brain. The "brain" should be a national council of educational or amateur athletic associations. Such a body composed of representative men and women from all the various national organizations, would serve a function of great usefulness in re-creating play as a factor in a vigorous national life.

Inasmuch as hygiene is but a phase of personal and social morals, and inasmuch as physical education is but a part of general education, and the playground movement but a phase of each, all these social efforts should be promoted with mutual consideration. Each has its distinct function, each overlaps the work of the other; each is but a part of the wider social endeavor to make human life saner and better worth the living.

The elimination then of all athletic evils and the realization of educational athletics, are simply questions of proper administrative policies and adequate organization.

THE RELATION OF MUSIC TO PHYSICAL EDUCATION

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Popular as the use of music is with gymnastic exercise in almost every school and college thruout the entire country, it is still a mooted question among educators whether or not we are doing right in allowing it. The Germans use music to a degree; the Swedes very much less; and we almost entirely. It certainly lends interest to the work and is a great help with the discipline. But from a physiological standpoint are we really justified in so doing?

Much can be gained from physical education, but the two important purposes are:

1. Stimulation of the nutritive processes of the body—circulation, respiration, and digestion. Muscular contraction draws the blood to the part of the body brought into action. The stronger the contraction, the greater the blood supply and naturally the better the nutrition and muscular tone.

2. The correction of poor posture. But this is dependent in a large degree upon the nutrition of the body. Weak muscles are bound to cause drooping head, contracted chest, and protruding abdomen. The poor postures we see especially among school children of the higher grades are not due so much to careless habits as we suppose, but rather to poor nutrition. The sedentary life into which a student is forced more or less cannot help but have a weakening effect upon the body unless counteracted by some kind of physical exercise. Hence to correct erroneous posture it is necessary first to increase the nutrition and build up the general tone of the body.

That music has a strong effect upon bodily movement is an undisputed fact. In Georgia, where a gang of negroes were unloading provisions from a steamer, it was impossible to get anything accomplished; the men were absolutely lazy—not an uncommon trait among the African race. When the overseer was

almost discouraged he happily thought of trying the effect of music. The services of a fiddler were procured and under his influence the negroes were stimulated to activity and the work progressed with alacrity. The effect of music upon muscular contraction has been definitely established.

First, that the strength of muscular contraction is greatly increased by any sound made simultaneously with the movement. This may be either an accompaniment of instrumental or vocal music, clapping, stamping, or shouting.

Second, the strength of contraction increases with the intensity of the sound.

Third, it increases with the height of the pitch—the higher the pitch the stronger the contraction.

Fourth, muscular contraction is affected by the character of the music. Anything written in the major is stimulating; in the minor depressing.

Fifth, the point of fatigue is greatly postponed.

Sixth, the steadiness of contraction varies. "This last," Jacob Bolin says, "is an experimental proof that music diverts the attention from the work at hand." In other words he claims that good form is lost in the effort to get the time.

It is a psychic law that the mind can focus its attention upon but one thing at a time, and most certainly good form of execution is the foundation of all physical training, or perhaps better, it is the goal toward which we struggle, for indeed there is no royal road to good posture. But how is it to be attained if there is no strength of body or muscle?

A weak man cannot do the work of a strong man and no more can a flaccid muscle be expected to compete with a strong and healthy one. Therefore, every means that is possible must be used to help build up the muscular tone of the body. As has been proven, music acts as a powerful stimulant, strengthening the muscular contraction. Therefore the blood supply to that part of the body brought into action is correspondingly increased. By repeated efforts it is possible thus in a shorter time than it could be accomplished without the aid of the outside stimulant to strengthen and build up the tone of the body. Hence any exercise which will greatly increase the blood supply and thus the nutrition of the body, is a good one and any outside agent which will aid in stimulating muscular contraction is to be desired and used.

However, as has been stated before, the mind is capable of focusing its attention upon but one thing at a time. With the use of music the time element is made of first importance and the form of execution must necessarily suffer, unless by previous practice the movement has become automatic. When, however, the muscular tone of the body has been so strengthened that it is possible to demand precision and correct form, then all stress must be laid upon the posture. Anything that will divert the attention from the proper execution of the exercise is a hindrance to the progress of the work and should not be employed. At this point in the development posture must not be given second place.

After the correct form has been thoroly mastered, in fact when it has become second nature, then music is again useful. It is a stimulus to the movement and adds interest to the work.

So there are three stages in the development of physical education in which music plays an important part, both as a help and a hindrance.

The first is when it is necessary to build up the general tone of the body. It is the preparatory stage when music by its powerful effect upon the stimulation of the muscular contraction is an absolute necessity. In every school where physical education is a part of the daily curriculum, and of course that ought to be every school in the country, a piano should be in each classroom; in the primary department at least. Where this is not practicable during exercise, time should be kept in some manner, either by clapping or stamping or beating on the desk with a ruler. The idea of allowing half of the class to sing while the remainder exercise is an exceedingly poor one. It is a waste of time and energy. Every child in the class should receive the benefit of the physical work each day. To permit the children to count in unison is an excellent plan especially in the lower grades.

The second stage is the backbone of all physical training—the correction of posture. Here, as has been previously stated, the whole attention must be upon the form of execution, consequently music is an absolute hindrance.

The last is the finishing stage when perfect control has been reached. Then music once more becomes a necessity and at last we realize the poetry of motion, the absolute control of the mind over the body. Therefore an intelligent use of music with physical education is to be desired. But like everything else it can be abused and its continuance thruout the entire course is exceedingly harmful.

WHAT CAN PHYSICAL TRAINING DO FOR THE TEACHER?

HARRY M. SHAFER, PRINCIPAL, STATE NORMAL SCHOOL, CHENEY, WASH.

The ideals and purposes of any age have found their application and their attempt at realization in the practices and teachings of the schools of that period. The schools have been a reflection of the tendencies of the age.

Has there existed admiration for beauty of form, for ease and agility of motion, and for those forms of expression which are physical, education has been directed into activities which have resulted in the development of a highly perfected physical being. Has the hero of the time been the one in possession of mental acumen, and forensic power, the schools have exhausted their energies in varied forms of mental gymnastics. Has the man of the hour been he who held the mastery over the classics, the curriculum has consisted of the Greek verb and the Latin noun.

In educational ideals of our own times the law still holds. Not only do the incentives which impel each nation reveal themselves in their systems of education, but the rank of that nation among the peoples of the earth can be

determined, to a great extent, by a study of its schools. Yea more, the practices in vogue in any country along lines of school hygiene reveal the efficiency, or lack of it, in the educational system of that country. Almost in direct proportion to a clear understanding and application of laws pertaining to satisfactory physical development is general intelligence and social strength.

The unusually high per cent. of illiteracy and the decadent condition of the people of Spain are matters of common information. The general lack of appreciation of physical training values and the too frequent complete neglect of health conditions in the schoolroom and the close connection of these with the degraded state of many of the people are not matters of such common information. In describing the situation a recent Spanish writer in a current magazine of the country says:[1]

The schools of Spain are inadequate and unsanitary, the teachers are poorly paid, and not always capable, and about half the people are illiterate. Yet nobody troubles about this deplorable state of things; and an excellent law which was passed half a century ago to inforce a kind of compulsory education is a dead letter.

Some of the rural schools have had to be closed because the only opening in the building thru which the fresh air could come was overlooking a burial ground. Other schools were simply the antechambers of town prisons, thru which prisoners were conducted. Others, again, are separated only by a wall from the hospital. In Malaga, twenty-seven schools have the drains opening on the playground, or court, close to the classroom; of 429 schools in other provinces, 400 are without water; a large number of the schools in Spain are without lavatories, and even that condition is better than that of some where the lack of sanitary arrangements can scarcely be described.

Some schools in a province mentioned by the writer have no opening but the door, which naturally has to be closed during the prevalence of certain winds and when it rains. Quite a number of these hovels have no boards on the floor, and the children stand on the bare earth. Add to all this the fact that the little ones are cooped up, in very many instances in a manner which allows them to have only one-fifth of the cubic space considered necessary in other countries.

The number of teachers is absurdly inadequate; Spain has rather fewer than 30,000, whereas New York alone has more than 39,000. The pay of the teacher is distinctly small; a large percentage do not receive more than $100 per annum, and the maximum, except in some of the Madrid schools, is $400! It is hardly to be wondered at that the teaching is not good. Spain falls below the standard even of Italy. The pay and the social position of the teachers must be improved; when this is done, Spain will have more of them, and they will insist upon improving the condition of the schools.

The result of this lamentable condition of elementary education is that 60 per cent. of the people in several provinces are illiterate, while in those provinces which may be termed better-educated we find 40 per cent. of illiterates!

The annual expenditure for education is very low, beinga bout $5,600,000, which is less than little Belgium devotes each year to the enlightenment of her people. This sum is not increasing from year to year, but is practically stationary.

The children do not remain at school so long as in other countries; the consequence is that while in other lands the number of those unable to read and write has rapidly diminished during the past thirty years or so, in Spain the diminution is very slow.

Quite in contrast are the attitude and conditions of other countries. Those countries which have been alive to the causal influence of physical training,

[1] "Slow Progress of Education in Spain," *Review of Reviews*, June, 1907.

and its logical application thru school hygiene, present conditions far different from those that prevail in Spain. A century or more ago the English Parliament was appointing committees to investigate and act upon factory and school conditions in that country. The reports of committees, made from time to time, invariably culminated in a discussion of physical training and physical conditions in the schools. Altho the problem is an old one, it still lives, is vital, and is woven into the very meshes of the life of the people.

Says a late writer,[1] discussing English life and physical conditions:

> The forthcoming International Congress on School Hygiene, to be held in London, August 5 to 10, has aroused widespread interest in the subject to which the congress pertains, considered both in its relation to school administration and to school instruction. In England several important events have conduced to make the physical welfare of the young a subject of first consideration with the government, and also with the leaders in all measures affecting public welfare. In particular the South African war demonstrated in a striking manner the need there was for improving the physique of that class of the population from which recruits are chiefly drawn, and also for extending among the masses elementary ideas of hygiene and sanitation.
>
> An outcome of the interest thus excited was the Inter-parliamentary Committee on Physical Deterioration, appointed "to make a preliminary inquiry into the alleged deterioration, of certain classes of the population, as shown by the large percentage of unfit recruits applying to enter the British army."
>
> Of fifty-three recommendations made by this committee to the British government, thirteen were especially concerned with school hygiene. Their report was presented to both houses of Parliament, July 20, 1904, and in the following March another committee was appointed by the government to obtain further information as to the medical inspection of schools and the provision of meals for children by voluntary agencies. Meanwhile, a petition signed by 14,718 registered physicians was presented to the educational authorities of England, Wales, Scotland, and Ireland, asking that the laws of health be taught and inforced in the national schools. As a result of this agitation, the English board of education and the Scotch education department have made the teaching and laws of health in public schools compulsory, and since the failure of the education bill of 1906, a brief measure has been enacted providing for medical inspection of schools in England.

The civilized world recognizes the fact that the comparatively small loss of life on the part of the Japanese, in their war with Russia, was not so much due to the inaccurate marksmanship of the Russians as it was to the rigid inforcement of laws of hygiene in the Japanese army. Bathing before entering battle, boiling water used for drinking purposes, changing under-clothing frequently, and measures of a similar kind are supposed to be responsible for the satisfactory condition of the Japanese troops. Perhaps an investigation would reveal a cause more remote in the lives of these people; it might show that the highly organized service of medical inspection in the schools, employing nearly 9,000 specialists, was the real cause of Japanese victory.

For many years medical inspection and direction in the German schools have been a potent influence in bringing them to their high standard of efficiency.

Occasionally the world pays tribute to the educational standards and practices of the Scandinavian peninsula. Is there an educator who does not

[1] "School Hygiene," *Education*, June, 1907.

know that much of inspiration and content in physical training, as well as in several other departments of the curriculum, have come from conparatively small Sweden?

In recent time, almost within recent months, added value has been imparted to the schools of our own country thru attention, long-delayed, turned to improvement of the physical conditions.

The location of school buildings is being done more and more with an idea of satisfactory environment and foundation with regard to principles of school hygiene, school lunches are being arranged with some thought for their effect upon the individual and his power for work, the length of the school day, the adaptation of school activities to ages of pupils, the hygiene of the daily program, the requirements for a satisfactory school desk, a thousand matters of health are under scrutiny.

One of the most important movements in recent times is the enlistment of the services of medical school inspectors or consulting physicians. The mention of the title of such a school officer suggests his relation to and his direct effect upon pupils. However, his greatest influence has not been in that direction. The greatest good that he has accomplished has been to open the eyes of the teacher.

From the days of the ancient Hebrews, and before, various and varied aims have inspired education, but only here and there has there been a leader to bring into prominence the leading purpose of all education. There need be no hesitation in enunciating it as an established principle that the leading aim of all education, that to which all other purposes are subordinate, is health.

As a result of the efforts of medical inspectors in schools, teachers are beginning to realize that when proper physical training and health requirements are neglected or omitted they are derelict in duty and are falling far short of being worthy of the vocation whereunto they are called. They are neglecting that which will redound not only to the good of their pupils but to the promotion of their own well-being.

"What can physical training do for the teacher?" Teachers often weary of addresses and papers which discuss the teacher's high and holy calling, the responsibility of the teacher, the teacher's obligation to the state, her place in the "system," her relation to the coming generation, to the men and women of tomorrow. There is less of opportunity for ennui from the too frequent presentation of her obligation to herself. Some one has said that "A body, beautiful, strong, and healthy, under the control of a trained and balanced mind, with both dominated by a high degree of social and moral consciousness, is the ideal which physical training seeks to realize and maintain." The body, the physical being, the foundation and center of action, ruled by a sane mind, to impress the personality upon the environment thru the ethical, which is also social. Physical training teaches the teacher the dignity and worth of her own being and that her function in life is to be fulfilled only thru the protection and

development of that being. It makes the health aim a leader in her life and brings her personality into prominence.

With such a ruling influence in life the day of the overworked, broken-down teacher is past. The time when old age comes on apace is postponed many a year, and the period of usefulness is increased to at least the three score and ten of the volume of the Sacred Law. It is said that all centenarians have been active men.

Let joy be unconfined! Wonderful to relate, the fountain of youth has been found. No longer will the advancing years of the gentle teacher be the butt of the quips and quirks of idle and wanton wit. Her young life will be perennial.

Too often the round of life of the teacher consists of a day at her desk, followed by an evening at her books or indoors, succeeded by another day in the schoolroom. An occasional evening is devoted to the theater, to a party or to some similar amusement. Saturdays are for gathering up the numerous odds and ends that have accumulated during the week. Sunday is for church service, Sunday school, a chat with friends, a street-car ride, perusal of magazines or what-not. All of her life is spent in sedentary occupations.

Her pulse rate lowers, her circulation is retarded, her temperature drops, her digestion becomes disordered, her system becomes loaded with waste products. While it is really her own temperature that is down, the temperature of the schoolroom seems low. Windows and ventilators are closed, the janitor is upbraided for not supplying sufficient heat. In goes the fuel, up goes the temperature and away go patience and discipline. In the impure and overheated atmosphere teacher and pupils become drowsy and sluggish, unsatisfactory study and recitations follow, things go badly, patience is exhausted, discipline becomes difficult, the teacher cross, and the school unruly. All leave the room dissatisfied and disgruntled, greeting the close of day with heaviness. Well may they say with the poet:

> Alas! I have nor hope nor health,
> Nor peace within nor calm around,
> Nor that content surpassing wealth
> The sage in meditation found,
> And walked with inward glory crowned.

How different is the teacher (also the schoolroom where she presides) who knows and employs physical training in her schoolroom and out of it. Her cheek is mantled with the glow of health and youth, her eyes sparkle with enthusiasm and life, her carriage is erect and commanding, being marked by that well-directed, easy quality called grace, her step is elastic, her figure possesses that symmetry that is admirable, cheeriness, strength, reserve power emanate from her presence and her every act. To be successful the teacher must give of her energy, magnetism, vitality. To give she must possess.

The schoolroom of the teacher who appreciates physical-training values is provided with adjustable desks which are adaptable to the individual pupils. In that room will not be found pupils with feet dangling short of the floor and

with elbows unnaturally elevated in an attempt to reach a high desk. Use of screw driver and wrench will have eliminated postures which tend to produce deformity or malformation.

The temperature of the room will not be excessive, the air will be pure and the light sufficient and well regulated as to quantity and direction of admission. Cleanliness will have reduced to a minimum dust and other impurities agitated by movement of pupils and suspended in the air. Occasional exercise will increase lung capacity, oxygen, and bodily heat; it will hasten secretion of digestive juices, and will promote absorption and assimilation; it will further the elimination of waste; it will result in clear thinking.

Discipline in this room is natural and comparatively easy since the safety valve for the escape of accumulated animal energy is in operation and since the teacher appreciates relaxation and herself can relax; turmoil and friction will be less than where health conditions are forgotten or ignored.

Every teacher desires to promote the good health of herself and her pupils. To do so requires no expensive apparatus or long course of training. The opportunity is open to all. To shine intellectually brains, either native or developed, are necessary; to excel in athletics requires clearness of head, sureness of foot, swiftness of limb; to hold masses spellbound under the charm of matchless oratory demands a fluent tongue; but to make the schoolroom and school life healthful and life-giving needs but common sense and caution. The poorest and the mightiest, the youngest and the most mature, the beginner and the veteran, the slender and those inclined to embonpoint, even the deformed can do something. None are exempt. Yet many, many teachers day after day are totally oblivious to the simplest precautions for the protection and promotion of human life. Why? The cause is almost unexplainable. A little "suggestion of the brain" will eliminate all sorts of troubles. Teacher and pupil will feel, with the preacher, "my heart rejoiceth in all my labours." Then the labor of both will become pleasurable activity.

Labor is life! 'Tis the still water faileth;
Idleness ever despaireth, bewaileth;
Keep the watch wound, for the dark rust assaileth;
Flowers droop and die in the stillness of noon.
Labor is glory! the flying cloud lightens;
Only the waving wing changes and brightens;
Idle hearts only the dark future frightens:
Play the sweet keys, wouldst thou keep them in tune!

Labor is rest from the sorrows that greet us,
Rest from all petty vexations that meet us,
Rest from the sin-promptings that ever entreat us,
Rest from world-sirens that lure us to ill,
Work—and pure slumbers shall wait on thy pillow;
Work—thou shalt ride over Care's coming billow;
Lie not down wearied 'neath Woe's weeping-willow;
Work with a stout heart and resolute will!

Labor is health! Lo! the husbandman reaping,
How through his veins goes the life-current leaping!
How his strong arm, in its stalwart pride-sweeping,
True as a sunbeam the swift sickle guides!

What shall be the attitude of the teacher toward athletics? It shall be one of encouragement and direction within reasonable bounds and of participation so far as possible. Interest in games and contests of young life brings the teacher into sympathy and touch with pupils in a way that can be surpassed by no other school activity.

In many forms of athletics there can be active participation. Track athletics with their rigorous training and frequent tendency to overtraining, and football, where the maximum age for efficiency is reached early in life, preclude active participation, but attract and need the guidance and co-operation of a sympathetic teacher.

Baseball for men, and tennis, basketball, hockey, gymnasium work, swimming, rowing, and other forms of exercise for both men and women develop the highest type of social sympathy, while promoting physical soundness.

The pupils whom the teacher really knows, who will suffer all sorts of inconvenience to do her pleasure, are the ones she meets in close companionship in physical training in its various forms. Given a teacher who maintains her health and her youth, who knows boys and girls and young people, who is deriving the fulness of joy and usefulness from life, there is also given one who can come down from her desk, who can unbend, who is really getting in next the hearts of boys and girls in a way that means character for them, and who is able to obtain both pleasure and profit from physical training.

DISCUSSION

A. H. McClure, superintendent city schools, Yuma, Arizona.—I have been very much interested in what I have heard on this very important subject, and I assure you that I am not here to tell you who are experienced in this line of work what you should do or what someone else should do. I shall be satisfied to tell you what we have accomplished in physical training in a small city school during the past two years. Yuma, Arizona, has been on the map for a long time and it will be on the map very largely in the not-far-distant future. We will soon be as great as we have been supposed to be warm in the past.

Two years ago I found very great irregularity in attendance in these schools, and the question with me, as it is with every superintendent, was how can this attendance be increased. Physical training was introduced in every department. Within two years' time we have trained from free gymnastics thru a course to that of Indian-club swinging with a class of about one hundred and fifty. I note some of my California friends smiling at the mention of Indian clubs. They are aware of the fact that in many parts of the East people are so far behind the times as to believe that we are all Indians in Arizona and Southern California. As many of you assembled here this morning are from the East, I will say for your benefit that while there are a number of Indians right near Yuma, in fact the Yuma Indians—they all belong to California and reside on the California side of the Colorado where there is maintained a government Indian school,

as also a large Indian reservation. Please place us right in the East and state that all the Californians are Indians. But returning to my subject, with the free gymnastics, wands, dumb-bells, Indian-club swinging, tennis, cadet company, baseball organizations, etc., the attendance and punctuality have been increased more than 25 per cent. while that of efficiency has gone up more than 50 per cent. But some one may say, How do you know that physical training has done this for you? It is not difficult to convince you on this point when I tell you that we almost broke up instrumental-music teaching in this city by the introduction of Indian clubs. Nearly every music-teacher in the city called at my office and informed me that they were very anxious to work in co-operation with the school and asked my assistance in the arrangement of music hours for their pupils. I suggested that several could be excused during the hour for Indian-club swinging which occurred each Tuesday and Friday. I was immediately informed that efforts along this line had been made by each teacher before consulting me but that in every case the pupil declared that instrumental music would be dropped rather than miss this exercise. Not only were the students of this frame of mind but each one had the mother with her. I suggested the hour for spelling or writing or in the high school the hour for drawing or where no recitation period was had. The query immediately came, "Will you admit these students to the physical-culture class if they miss this recitation?" to which I answered yes. Our plan was that to have access to this physical-training class the student must be perfect in attendance and punctuality and that class recitations should be of good grade while that of deportment must be almost perfect. It worked like a charm. And these music-teachers knew it as well as I did, and they have really worked harmoniously with the superintendent ever since.

I might say that this Indian-club-swinging class had such an influence upon the children that it became what might be termed a "craze" in the city. Not only did this class of one hundred and fifty swing clubs, but this form of exercise became so popular that the little tots not yet old enough to enter school, the grown-up young folks, and many of the mothers and fathers purchased the Indian clubs and exercised, and in some cases I have had application from the parents to admit them to our physical-training class for next year. I think probably I shall admit all who apply, for we have plenty of room to accommodate almost any sized class—five hundred as easily as one hundred. In this city the sun shines three hundred sixty five days in the year, and we use the school campus, the leader directing the work from the front porch of the school building. We ordered the first set of Indian clubs for the town and now some six or eight merchants keep in stock a good supply of these clubs and they have no trouble in disposing of them. Children who have been to the store for vegetables and eggs may be seen with the bag of eggs in one hand and the vegetables in the other playing "Indian clubs" as they return and sometimes one of the clubs will break.

These different forms of physical training have accomplished much for the boys and girls of our city. Many girls who were physically weak and unable to attend school very regularly are now robust and able to attend every school day; and not only do the parents of the children notice this improvement but others speak of it and wonder at what has been accomplished in so short a time

Boys who in the past had scarcely been known to attend five days in succession at any time during the term and who took but very little interest in their work are now in attendance almost every day during the entire term, and have acutally become interested in their books.

Many pupils have been known to cry when compelled on account of sickness to miss a day because they wanted the advantage of every hour in our physical-culture drill.

Not alone has this physical training accomplished wonders for us among the children, but it has brought the parents nearer us, and on Indian-club-swinging days we always have quite an audience of patrons, citizens, and even Indians from California gather on the sidewalk to witness the work of the children.

I believe that every school should have regular instruction in physical training, for if we develop the strongest mental child we must of necessity develop a strong physical child. What has been done in Yuma can be done in any other city or town school if properly directed. Our schools will compare favorably with any graded-school system in the United States and this extra work has helped us attain this standard. It will contribute largely in the building-up of a good standard for any other school. It is good for the student, it is good for the teacher, and it is good for the community, and I shall work in hearty co-operation with this department of the National Educational Association, and I hope that we may bring about such an interest in this physical training that the "craze," if it may be so called, will reach every school in the land, and that teachers will of necessity take up such instruction. This branch of learning is just as important as any other and every teacher should be required to pass an examination in physical training and impart her knowledge to her pupils whether they be primary, grammar-grade, or high-school students.

DEPARTMENT OF SCIENCE INSTRUCTION

SECRETARY'S MINUTES

FIRST SESSION.—TUESDAY AFTERNOON, JULY 9, 1907

The department met in the State Normal School, Los Angeles, at 9:30 A. M., and was called to order by President H. A. Senter, head of department of chemistry, high school, Omaha, Nebraska.

The session was devoted to an informal discussion of the topic: "What Equipment Is Required for Successful Teaching of Chemistry in the Secondary Schools."

The following Committee on Nominations was appointed by the president:

W. A. Dunn, Los Angeles, Cal. Horace H. Cummings, Salt Lake City, Utah.
Lucas A. Reed, Healdsburg, Cal.

SECOND SESSION.—THURSDAY AFTERNOON, JULY 11

The meeting was called to order by President Senter at 2:30 P. M.

Frank F. Almy, professor of physics, Iowa College, Grinnell, Iowa, presented a paper on the topic, "What Equipment Is Required to Successfully Teach Physics in Secondary Schools." The discussion of the paper and topic was led by Irving O. Palmer, science master, Newton High School, Newtonville, Mass. The informal discussion was participated in by W. A. Fiske, Richmond, Indiana; Professor Fernando Sanford, Palo Alto, Cal.; Arthur Dunwood, Pomona, Cal.; Superintendent Mott H. Arnold, Eugene, Oregon; J. Fred Smith, Campbell, Cal.; Chas. F. Hays, Denver, Colo.; W. R. McDonald, Auburn, Cal.; Misses Vesta Gray, Lemoore, Cal.; and Ruby E. Gracier, Fruitvale, Cal.

The report of the Committee on Nominations was read and adopted and the following officers were declared elected for the ensuing year:

For *President*, Irving O. Palmer, science master, Newton High School, Newtonville, Mass.

For *Vice-President*, Frank F. Almy, professor of physics, Iowa College, Grinnell, Iowa.

For *Secretary*, Henry Kerr, principal, Excelsior Union High School, Norwalk, Cal.

The department adjourned.

FRANK F. ALMY, *Secretary*.

PAPERS AND DISCUSSIONS

WHAT EQUIPMENT IS REQUIRED TO SUCCESSFULLY TEACH PHYSICS IN SECONDARY SCHOOLS?

FRANK F. ALMY, PROFESSOR OF PHYSICS IN IOWA COLLEGE, GRINNELL, IOWA

When asked to discuss any topic in connection with secondary-school teaching my mind reverts to a quip credited to Lord Rosebery. When asked to define memory, he is said to have replied that memory is the sensation which creeps over one when a friend tells an original story.

One must needs be a genius who shall discuss any phase of the teaching of elementary physics without stimulating the aforesaid sensation. For, beginning

with the report of The Committee of Ten, in 1893, the various questions involved in the teaching of elementary subjects have been discussed hither and yon until it would seem that there can be no phase of the subject that has not been, many times, settled beyond all controversy. And yet we have the "new movement among physics teachers," which seems to be developing a wide group of teachers inclined to take quite a new attitude toward the teaching of elementary physics.

If there is any phase of the subject which has not been worn threadbare, it may be that assigned for this discussion, to which we are led by the report of your committee at the last meeting of this department of the National Educational Association.

I have no quarrel with the report of your committee as regards the first-year course in physics, and it is to the first-year course I wish to limit my part in this discussion. There have been numerous syllabi of such courses presented, a considerable number in the main good, and differing but slightly. But a syllabus will not teach a successful course in elementary physics. I am a staunch believer in the Garfield college, but the log is not the essential. The syllabus served a most important function in the teaching of physics in the decade following 1893. It compelled the teacher to "sit up and take notice," to take account of stock, to make conscious analysis of the work to be done, and to apportion his efforts equably to the subject-matter to be presented. The debt of elementary physics to those who have followed the lead of Professors Trowbridge and Hall, who gave us the original syllabus, which was incorporated into the "Report of the Committee of Ten," and which forms the body of practically every elementary laboratory manual published in the decade following, has not been overestimated. And while the "new movement," or a new movement may very materially modify the subject-matter both of classroom and laboratory work, there will remain the consciously consecutive and correlated treatment of subject-matter with quantitative laboratory work, which is the outgrowth of the Harvard movement thru those who have followed it.

But whatever the syllabus, the question of successfully teaching elementary physics is not determined by the omission, or failure to omit, certain topics from the discussion, by demonstrating, or neglecting to demonstrate, particular phenomena, or by the inclusion or the exclusion of a topic from the laboratory work. The syllabus is a guide, and indicates the treatment to which each topic lends itself, but the competent teacher may safely be, and at times must be, a law unto himself.

But to the topic, "The Equipment Required for Successfully Teaching Physics in Secondary Schools."

The prime essential is a teacher; a capable teacher of tact and abundant common sense. I know of no better discussion of this topic than that of Professor Hall in his *Teaching of Physics in the Secondary School.*[1] Professor Hall in opening his discussion says,

[1] Longmans, 1902.

As in any other department of pedagogic art, there is in physics the teacher who is born and the teacher who is made. The latter, if successful, is the product of infinite labor, of long-suffering patience with himself, of constant courage, of never-dying willingness to learn.

The teacher of physics should not be a utilitarian. To quote Superintendent Bardwell,

When the patrons, the members of a class, or a teacher, or all three of these feel that the information to be obtained from a course in physics is its chief reason for its place in the schools, that subject will be taught in a weak and insufficient manner. . . . . I wish to urge that the attention be given not so much to the science as to the people who are being instructed in the science.[2]

The vision of the teacher of physics should be no more restricted, no less humane than that of the teacher of the humanities. His mission to society, to civilization, is constructive. He should be no less creative, not less inspiring to men because of the utility of physics.

In addition to the qualities of inspiring leadership demanded of any teacher, the teacher of physics needs, to again quote Professor Hall,

capacity for clear, sustained, correct thinking—capacity for quick understanding of mechanisms—a considerable degree of skill and proficiency in the use of tools, a reasonable acquaintance with the processes of the workshop.

He should know his subject beyond that which he expects to teach in order to have perspective; he must always seek to know more, both by study and by investigation, if nothing more than the small problems that arise out of his own experience and are associated with his own work. He must be alive and keep abreast of the trend both of work and methods, but he "should be a physicist, rather than a pedagog with an inclination toward physics." He must be long in common sense and in his knowledge of common things, for I believe with Professor Crew, that the facts of elementary physics are largely already the common knowledge of the pupil, and the teacher must have the capacity to use this fund of common knowledge and to shape it into an orderly arrangement of facts—"organized common sense,"—a science. Do not understand me for a moment as making a plea for phenomenology; the work should be elementary physics. It is entirely possible that a course in physical phenomena might be used in connection with, or as a part of, the nature-study work of the last grades of the grammar school and be of much greater educational value than work that is now given there; but the youth of high-school maturity, in my humble opinion, needs the more mature form of work.

The teaching of elementary physics can be successful without further equipment, but conditions do not ordinarily obtain which are conducive to make that kind of instruction successful. The second essential is equipment for demonstration. This need not be elaborate to be effective. It must be such as will make a real contribution to the information that the pupil already possesses. It should supplement the demonstrations of physical principles, laws, and phenomena that can be drawn from the everyday experience of the

[2] *Sch. Sci.*, Vol. III, p. 443.

pupils by presenting illustrations not familiar to the pupil and which, on that account, are impressive; and by the repetition of familiar phenomena in order to obtain accurate observation of details that escape in the casual observation. Demonstrations should not be introduced that do not in some way contribute to the education of the pupil. Of necessity, then, the experiments actually performed before the class should vary with locality, as will the supplementary illustrations drawn from the fund of common experience of the pupils. The sensational and spectacular demonstration is to be avoided in favor of the simple experiment which directly demonstrates the physical principle or phenomena involved. It is entirely possible to revive the much lamented "go" in physics in legitimate ways. As illustrating these points, I would consider the airpump and accessories valuable because few pupils are familiar with satisfactory illustrations of the phenomena here involved, and the field it illustrates is large. The whirling-table and accessories are similarly useful, and so also is most of the apparatus that receives general acceptance in demonstration use.

With this equipment, viz., a capable, tactful, resourceful teacher with sympathy and vision, with properly selected and even limited demonstration equipment with which to get certain phenomena clearly before the pupils while under discussion, I am not prepared to say that elementary physics cannot be successfully taught. I am, however, very thoroly convinced that in the vast majority of schools under the conditions that now almost invariably obtain, and certainly in the present stage of the evolution of science teaching, experimental work on the part of the pupil is a very material aid to successful teaching of the subject. I believe that the nature of this personal experimentation should be very materially influenced, just as in the demonstration work, by the habits and experience, by the life and ideals of the pupils. The work of the classroom and that of the laboratory must complement the knowledge that the pupil has obtained thru previous experience, and correlate and co-ordinate the whole. To me it seems self-evident that in the nature of things there should be radical difference in discussion, in demonstration, and in the personal work of the pupil in the country town or small city from that in a factory town, and each in turn differing from that in a school in the large city. The competent teacher has his syllabus—or syllabi—with which his course should measure up. In his striving toward the standard, under the conditions peculiar to his environment, he must be a law unto himself; he must properly evaluate the components peculiar to that environment and attempt to supply the deficient complement—not necessarily to measure up to the standard set by the National Educational Association, or that by the North Central Association or by the "Harvard Circular," but to the standard which, guided by these or others, he has set for himself in his environment.

The principles that should guide in providing for the personal experimentation, so succinctly put by our chairman in his discussion of the high-school chemical laboratory before this department at its meeting of 1904, are *utility*

and *economy*. The more I have thought upon this matter the more convinced am I that Dr. Senter has there put the kernel of the matter into a very small shell. If the teacher will properly evaluate the precept there given, it is certainly a safe guide in the selection of the physical problem to be used for laboratory experiment, the laboratory experiment to be used to elaborate the problem, and the particular form of apparatus to be used in the laboratory experiment. The principle of utility and economy may be the criterion in the whole matter. To apply the test to the equipment of the laboratory; the apparatus should be reliable and should not only permit the repetition of an operation with the same result, but also it must persistently perform consistently. To be assured of this it should be made by a reliable maker or at least by skilled labor. It should be as simple as is consistent with good results, on account of less liability to failure in operation and in order that its manipulation and operation may be within the comprehension of the pupil, that his attention may comprehend the physical problem and not be wholly directed upon the mechanism; that is utility with economy in cost, time, and effort of operation. For the same reason I should use the method and apparatus, other things being equal, that reaches most directly the results sought. There are occasions when other things are not equal, when an indirect method involves other phenomena, methods, data, or constants such as to make it more useful and efficient when measured in its ratio of total net results to total cost of time and effort.

In qualitative experiments, the apparatus should be reliable in order to maintain the confidence of the pupil, and in order to avoid confusion by erratic results. In quantitative work there should be no failure of apparatus which shall lead the pupil to the attitude that the results finally obtained are guess work or may be juggled. The apparatus should permit doing quantitative work; otherwise it fails. The apparatus should be assembled in a workman-like manner; and whether it be commercial apparatus or made by a local mechanic, it should be finished and wear an air of respectability at least equal to that of its surroundings. It must be apparatus which commands respectful treatment from the pupil thru its appearance and apparent adaptability to its purpose; it must maintain the respect of the pupil by consistent, truthful performance. If it does this, successful laboratory-teaching can be accomplished thru it, whether it be made by Golaz of Paris, or by Jones, the local blacksmith.

For utility in teaching and economy of effort of both the instructor and pupil the laboratory-work should be consecutive with the discussion and demonstrations in subject-matter. This can generally be accomplished with such duplication of apparatus as will permit one-third of the laboratory division of the class to work upon one experiment at one time. This need displace no experiment more than two laboratory periods from the place in time which it would occupy if sufficient apparatus were provided for the class to work abreast. I have employed both methods and in my own experience do not find the inherent evils of the two methods to differ materially. It is more agreeable and economical of the teacher's effort for the class to work

abreast, but it is in no way necessary to successful laboratory-work. This will mean, in addition to the equipment that is used in common, three sets of apparatus for those experiments in which it is necessary for two pupils to work together and twice that number for those experiments where individual work, which is always desirable, is possible. For working the class abreast three times as many sets will be required. This is on the basis of eighteen pupils as a maximum laboratory division and twice that number for a classroom division. Dr. Millikan estimates that a set of apparatus for the somewhat commonly accepted number of experiments can be provided at a cost of from $60 to $75. As already implied, the environment has very material influence in determining this, but for the ordinary-sized high school in the city of from 5,000 to 15,000, I should consider that a satisfactory laboratory equipment could be provided under that estimate, assuming the permanent fittings of the laboratory as previously furnished.

I think I have now covered in *essentials* the field indicated by the topic "What Equipment Is Required to Successfully Teach Physics in Secondary Schools?" Let me summarize:

The prime essential—the teacher, capable, progressive, tactful, resourceful; the teacher with capacity for clear, correct thinking, for understanding of mechanism and deft in manipulation; with some degree of mechanical knowledge and skill; a teacher with vision, with qualities of leadership, and with appreciation of citizenship.

Second, equipment in apparatus and accessories, somewhat determined by the environment, to enable the teacher to demonstrate before the classes qualitatively, and in part quantitatively, such phenomena as will complement the fund of knowledge already possessed by the pupils.

Third, equipment for personal experimentation, largely quantitative, to supplement the conception of, and acquaintance with, the subject obtained in the classroom; to enable the pupil to have a "realizing sense of things by coming into contact with them." This apparatus equipment should be presentable in design and workmanship, reliable in operation, sufficiently simple in construction, so that its operation and manipulation is within the comprehension of the pupil. It should be provided in sufficient duplication to permit the laboratory work to be co-ordinated with the classwork into an integral whole, and permit the pupil to do individual work whenever possible.

And, finally, the guiding precept thru it all should be *utility* with *economy*, the application of it all, the *making of men.*

DISCUSSION

Irving O. Palmer science master, Newton High School, Newtonville, Mass.—I am fully convinced that the ultimate object of all physical science is to facilitate the labor and ameliorate the conditions of life. I feel that all teaching of physics and physical science in secondary schools should be arranged in accordance with this idea. The tremendous advances in civilization which have been made during the last century are largely due to the practical application of the principles of physical science. Advances in applied science

—new applications of science—can be made only as the men who are devoting their lives to original investigation, to research, learn new truths. We must have the truths before we can have their application. We must have the work of the investigator in physics as well as that of the engineer.

My notion is that the equipment which we need for successfully teaching physics in secondary schools is the same whether the students taught are to become, in later life, original investigators, engineers, or, as graduates of industrial or trade schools, the trained mechanics who execute the plans of engineers. It would then seem to be of supreme importance that the equipment in the secondary school be such that there is aroused and maintained in the boy a compelling interest in the subject of physics to the end that there may be an ample supply of the very best material from which other institutions may develop our scientists, our engineers, our highly skilled mechanics. This brings me to my real subject, to the one point which I am especially anxious to make—namely, that every secondary-school physical laboratory ought, in my judgment, to have a workshop and in that workshop, at least a part of the time, a worker who can repair and build apparatus—not necessarily apparatus that has a piano polish and an abundance of German lacquer, but good apparatus that will work.

With us in the East, local makers of and dealers in physical apparatus are furnishing more and better material than ever before; general manufacturers of tools and machinery are very kind in aiding teachers of physics to obtain models and samples; the apparatus of the European makers is more easily obtained than ever before, but if we are deeply to interest the boy, if we are to humanize the matter as far as is consistent with sound work, if we are to bring it into fields that more intimately concern man, a great deal of apparatus and material is needed which I, in my experience, have been able to procure only by equipping and using a workshop in my own school.

I maintain that every teacher of secondary-school physics ought to be a pretty good mechanic. He should be able to do a fair piece of cabinet work, he should be thoroly at home in the machine-shop, and he ought to be somewhat skilled in glass-blowing. His shop should depend in size and equipment largely upon the size and equipment of his school in general. It ought to be just as large and just as fully equipped as he can make it. It will justify its existence and constitute one of the most valuable parts of the laboratory layout whether it be a small workbench having only a hammer, saw, soldering iron, box of nails and screws, and roll of wire—the sole dependence of a small country school, or the fully equipped shop of a large city school furnished with power-driven engine lathe, planer, shaper, vertical drill, saws, etc., and having a well-appointed room for glass-blowing.

I have said that the workshop ought to have in it a worker who can repair and build apparatus, and that the teacher of physics ought to be a good mechanic. That I fully believe, but I would not be misunderstood. I do not for a moment think that, in the large school, the teacher ought himself to work much in the shop; he should design apparatus and supervise its construction. He should have an assistant, a mechanician, a portion of whose time at least is given to the building of apparatus in the shop. This assistant ought to be a good glass-blower, a skilled worker in wood and metal, and a pretty good draftsman. Further, in order that he may be a valuable assistant in the lecture-room, he ought to have a pretty good general knowledge of physics and mathematics and to be endowed with a modicum of common sense. In short he should be that combination of student, skilled mechanic, and expert laboratory assistant to which the Hollanders give the name *amanuensis*.

To sum up: The secondary-school physical laboratory should include in its equipment an enthusiastic teacher who is a good mechanic, a workshop as large and as fully equipped as the school can be made to provide, and a well-trained amanuensis whose services are to be given to shop, to laboratory, and to lecture-room.

DEPARTMENT OF SCHOOL ADMINISTRATION

SECRETARY'S MINUTES

THURSDAY MORNING, JULY 11, 1907

The meeting of the Department of School Administration was called to order by President J. W. McClymonds, Oakland, Cal., in Alhambra Hall, Fraternal Brotherhood Building, July 11, at 9:30 A. M.

The chair appointed Wm. C. Bruce to act as secretary, pro tem.

The president then stated that the addresses on the program must necessarily be dispensed with, owing to the absence of the speakers.

The election of officers for the ensuing year was then taken up and the chair appointed as Nominating Committee Superintendent C. L. McClain, Fresno, Cal., chairman, Principal A. Harvey Collins, Covina, Cal., and Birney Donnell, Los Angeles, Cal.

The Committee on Nominations recommended the following names:

For *President*—W. O. Thompson, president, Ohio State University, Columbus, O.
For *Vice-President*—J. W. McClymonds, superintendent of schools, Oakland, Cal.
For *Secretary*—Wm. Geo. Bruce, editor of *School Board Journal*, Milwaukee, Wis.

Mr. Collins moved that the secretary be instructed to cast the ballot for the persons nominated. The motion was carried and the ballot cast, and the chair announced the persons nominated as elected.

The meeting then adjourned.

WM. C. BRUCE, *Acting Secretary.*

LIBRARY DEPARTMENT

SECRETARY'S MINUTES

FIRST SESSION.—Tuesday Afternoon, July 9, 1907

The department met in joint session with the Department of Normal Schools, in Alhambra Hall, Los Angeles, at 2:30 P. M., and was called to order by the president, J. N. Wilkinson, of Kansas.

D. B. Johnson, of South Carolina, then read a paper on "Preparation of Librarians for Public-School Libraries." A second paper was given by Miss Elizabeth T. Sullivan, of Los Angeles, on "Instruction of All Prospective Teachers in the Contents and Uses of Libraries with a View to Direction of Student Energy in All Grades of Schools."

Discussion on both papers was opened by J. R. Kirk, of Missouri, followed by Harriett Arden, of New York; P. W. Kauffman, of California; Mr. Thomas, of Nebraska; Mrs. Smart, of Ontario; Miss McFadden, of San Francisco; Mr. Robinson, of Oregon, and Mr. Lucas, of Seattle.

President Wilkinson appointed the following:

COMMITTEE ON NOMINATIONS FOR LIBRARY DEPARTMENT

D. B. Johnson, South Carolina. Miss Fargo, California.
Miss Rulon, Nebraska.

President Kirk appointed the following:

COMMITTEE ON NOMINATIONS FOR DEPARTMENT OF NORMAL SCHOOLS

W. A. Clark, Nebraska. Joseph H. Hill, Kansas.
J. F. Millspaugh, California.

SECOND SESSION.—Thursday Afternoon, July 11

The department met at the same place at 2:30 P. M., and was called to order by D. B. Johnson, of South Carolina.

The president, J. N. Wilkinson, gave an address on "The Librarian as a Teacher."

A paper was presented by Miss Mira Jacobus, of California, on "How the Teacher May Help the Librarian."

W. A. Edwards, of California, read a paper on "How the Librarian May Help the Teacher."

There was no discussion on the papers.

Mr. Johnson gave a report of the A. L. A. meeting held at Asheville, N. C., in June.

The Committee on Nominations for Library Department reported as follows:

For *President*—J. R. Kirk, president of State Normal School, Kirksville, Missouri.
For *Vice-President*—Mary Eileen Ahern, editor of *Public Libraries*, Chicago, Ill.
For *Secretary*—Ida J. Dacus, librarian, Winthrop Normal and Industrial College, Rock Hill, S. C.

The report was accepted, and these persons elected as the officers of the department for the coming year.

The department adjourned.

Elva E. Rulon, *Secretary*.

PAPERS AND DISCUSSIONS

PREPARATION OF LIBRARIANS FOR PUBLIC-SCHOOL LIBRARIES

D. B. JOHNSON, PRESIDENT, WINTHROP NORMAL AND INDUSTRIAL COLLEGE, ROCK HILL, S. C.

According to the report on instruction in library administration made to the library department at the last meeting of the National Educational Association, all the states of the United States except twelve have some provision for the establishment of school libraries. The report mentions South Carolina as one of the twelve. I am glad to state that the general assembly of South Carolina passed "An Act to Encourage the Establishment of Libraries in the Public Schools of the Rural Districts," February 18, 1904, and that we now have some 1,000 such libraries in the state, and are rapidly establishing others. No doubt others of the twelve states mentioned in the report as having no school-library law have done likewise since the report was made, and that now all of the states, with few, if any, exceptions, make some provision for school libraries.

An estimate was made several years ago that there were then in the United States 23,000 school libraries, containing 45,000,000 books, a number greater by 12,000,000 than in all the public libraries of Europe at that time. Since that estimate was made there has been greater activity than ever before in the establishment of school libraries, and today, no doubt, there are more books in the school libraries of this country than inhabitants of an age to read them. There has been a remarkable growth in the public-library movement during the past century, and most of it has been during the latter part of the century. We learn from a paper read by Miss Robertson before this department in 1902 that "prior to 1810 there were but ten public libraries in existence, and these were chiefly subscription and society libraries, collected and used by those who were able to pay for the privilege. To America belongs the honor of founding and perfecting the free-library system." Matthew Arnold said in one of his lecture tours in this country that he saw nothing in America that impressed him so much as the sight of a ragged and almost shoeless little boy sitting in the reading-room of one of our public libraries, studying his book or newspaper with all the *sangfroid* of a member of a West End London club.

But now, this great library movement is world-wide, and in the ages to come this will be looked upon, in the opinion of some of our most thoughtful men, as the library-building age.

A multitude of books, however, cannot effect much good without a multitude of intelligent readers. A pile of books is no more a real library than a pile of bricks is a house. It is more difficult to make intelligent readers than to build libraries and equip them.

And just here comes in the duty and obligation and opportunity of the educator and the opportunity of all the agencies and forces of education, and there can be no greater object for these agencies and forces than that of making of the people intelligent readers of good literature. The people will be molded by what they read for good or for evil. As a man thinketh in his heart, so is he. He cannot rise above his ideals. A man thinks as he reads. Reading forms his ideals—good or bad.

It is as difficult, however, to change a grown person's taste or habits in reading as to work over dried plaster of paris. The great field for work in this line of endeavor is therefore with the young. The teacher comes into closer relation with the children than anyone else, next to the father and mother, and as the father and mother cannot or will not direct their children's reading, it becomes the duty and opportunity of the teacher to do it in the school. If the habit of reading is to be formed among the people, then the teachers must form it thru the school children. Hence the close relation of the school and the library—the people's university.

We cannot any longer speak of the sphere of the library as separate and distinct from that of the school. "Neither has a sphere, each is but a hemisphere, and they shall be one," as has been said of man and woman. The library is a necessary part, if not the most necessary part, of a school, even the humblest and most elementary. It gives life and breadth to the school and relates it to human affairs.

Properly used, it broadens the outlook of pupils, gives them better judgment, makes them more self-reliant, better fitted to meet the complex problems of life. When pupils are confined to the text and are shut up to solving its problems by the accompanying rules, to accepting its teachings and the fiat of the teacher without question, they are made weak in their personal judgment. They must be made to know that the sum total of knowledge of the subject studied is not comprised within the covers of the textbook used in class, by being referred to the library for additional information and for parallel reading, in order to give them breadth of view and soundness and independence of judgment. The children must be given something else besides the "scrappy mental and moral bill-of-fare" offered by the textbook. The old idea that there must not be anything interesting or entertaining about lessons, accompanying that other old idea that Christianity means a long face and a sorrowful countenance, is being abandoned everywhere. We have learned that the way to educate a child is thru his interest—along the line of least resistance. The mother who, when told that Johnnie was in the garden, said, "Go and see what he is doing and tell him to stop it," does not represent the new and best attitude toward children and education.

I do not wish to be understood as underrating the importance of schoolroom drill or textbook work, but rather to be emphasizing the importance of that which seemingly is not generally recognized, judging from practice—the use of the library in schoolwork. There is no work of the teacher surpassing

in importance, I am almost tempted to say, comparable, to that of teaching children to use and love good books. If a pupil does not learn how to use books and does not get into the habit of reading and studying them, his education, so called, in the end does not amount to much. The object of the school is to educate, and there is no educative influence like that of a good book. We can hardly overestimate the good influence in a community or a school of a good book freely and generally circulated.

Dr. VanSickle, acting president of the library department of the National Educational Association in 1897, well said in his opening remarks:

> Since half of the children leave school at the age of twelve, it is evident that education is largely an out-of-door affair. If education is not to stop with the school, the library is the chief instrumentality for its continuance, and for its proper use, the school can give the training. . . . . It is the one duty of the school to develop in the child the power to educate himself after he leaves school. This, it has done when it has cultivated in him the reading habit and developed literary taste. It makes not so much difference what our pupils learn as what they love. What they learn they will forget. What they love, they will pursue thru life.

The school has to do with the child and youth, but the library has to do with the child, the youth, and the man until the end of life.

President Eliot, that far-sighted, clear-headed educational thinker and leader, holds that "the uplifting of the democratic masses depends on the implanting at schools of a taste for good reading."

To form the tastes of children for good reading, we can hardly begin too early. Before they can read, they can be read to and told stories. This work must be begun early to be effective, because, as has been estimated, four-fifths of the school children pass out into active life before reaching the high school.

In order for this great and far-reaching work to be done, now admitted by leaders of thought everywhere to be vital to the welfare of the children and people and the state, every school, preferably every schoolroom, must have its well-selected library, and every teacher must know how to use that library to the very best advantage. Hence the necessity for some provision in normal schools, which are training the teachers of the country, for the teaching of library methods, not to make professional librarians, but teacher-librarians. The necessity for such work in normal schools seems to be very generally recognized now. If it is the duty of the state to teach its future citizens to read, it is equally or more its duty to teach them what to read, in view of the danger to the individual and the state of reading evil books.

When the first shots were fired at Fort Sumter in 1861, it is said that a cannon ball fell in a field on one of the South Carolina coast islands near the fort where an old negro was working and sank hissing into the soft earth. The old darky, who had never seen a cannon ball before, fled from the place with eyes rolling in terror, crying out, "Hell hab laid a aig." He spoke far truer than he knew, and yet an evil book dropped into the life of an individual will hatch out more evil for that individual and, if into the lives of enough

individuals, more evil for the community and country at large than did that first shot for individuals and for the country, altho it hatched out all the evils and destruction and bitterness and suffering of the Civil War.

The sub-committee on the relation of libraries to normal schools, in its report to this department, holds:

> If the people look to the normal schools for trained teachers, then they have a right to demand that these teachers come to them prepared to name the best books and to use them in the best way after they are purchased. The teacher worthy of the name should not be satisfied until, having chosen a book for a child with as much care as a physician would use in selecting his instruments, he sees that child as an interested and successful reader of the same.

Teachers must keep in close touch with the people, must be interested in what they are interested in, must prepare themselves to give training in all those things necessary to enable the people to live the best lives possible in their environment, must take interest in and part in all live questions if they are to get out of that class in which the old woman placed them, among neither the living nor the dead, when in reply to the question "How many children have you?" she answered, "Five—two living, two dead, and one teaching school."

Many normal schools in all parts of the country are giving instruction in library methods to prepare teachers for this new work. In my own state of South Carolina, the institution I represent, the Winthrop Normal and Industrial College, is trying to do something in this direction. Under our new library law, a number of school libraries have been established in different parts of the state, and others are being established rapidly, and for this reason and for others already stated, we feel that in order to thoroly equip a teacher for the common schools, which it is our duty to do, we must give our students some training in library methods. Mr. Andrew Carnegie recently gave us $30,000 for a library, and in building it we made provision for classrooms and workrooms to be used in teaching library methods. The state gives us an annual appropriation of $2,000 to buy books, and we now have over 14,000 volumes, bought during the past twelve years since the establishment of the college. The books are selected by a committee of the faculty. We have two thoroly trained librarians, both graduates of library schools, in charge. The library is free to all, no fee whatever being charged.

We give two library courses at present—one to the freshman class and the other to the seniors. Both are compulsory.

The course for the students entering freshman class consists of reference work to familiarize them with some of the most important books of reference and to train them to a systematic and intelligent use of books and the library. In this course a study is made of dictionaries, annuals, indexes to general and periodical literature, books of quotations, etc. Instruction in the classification of the library and the use of the catalogue is also given. One period a week in class for the first term (half the session) is given for this course.

The freshmen are given this course for two reasons: (1) to enable them to use the library to better purpose thruout their college course, and (2) that they may have some library training to be used in their homes and schools if they have to drop out of school before graduation, as many of them do.

The course for the seniors is arranged to give such instruction as is needed in the formation and care of a school library. It includes the following: selection of books—books suitable for the different grades, best editions for school libraries—most useful government publications, book-buying, classification, book numbers, accessioning, cataloging, shelf-listing, charging-systems, picture bulletins, care of books, mending books, making of picture bulletins, state school-library law, state library list. One period a week in class for the second term is given for this course.

The librarian does the teaching.

We have a model school library in the classroom, consisting of the books in the State Library list, which is used by the students in all the practice-work given in the course.

These courses are not all we hope to make them after longer trial of them.

If a school library is large enough to justify and require a professional librarian for all of his time and can afford such an officer, the regular library school can and will supply him. Most, if not all such schools, give training for work with children and children's books in addition to the regular library training. I do not believe that normal schools can profitably or successfully undertake the training of professional librarians, and I am glad to know that this opinion is shared by others who have given the subject earnest thought. So experienced a librarian as Mr. G. M. Walton, of the Michigan State Normal College, writes me in a recent letter:

> Any library of 1,000 volumes or more should be looked after by someone who has had more experience in library methods than it is judicious to offer in the normal school. This is my opinion after fifteen years of experimenting and observing the work of other normals.

The report of the committee on instruction in library administration, made to the library department of the National Educational Association at its last meeting, seems to uphold this view. The recommendation of that committee as to library work in normal schools may well be taken as a guide by all normal schools undertaking such work.

The committee suggests that the instruction offered ought to cover the following subjects:

> School libraries: place and value both as general collections and for special instruction; types; how to organize.
>
> The public library and the public school: the field of each and general relations; loans; bulletins; classroom libraries; museums.
>
> How to use a library: books as tools; care of books; book-making; reference books.
>
> The school-library room: location; light; heat and ventilation; equipment.
>
> Selection and ordering of books; authority of librarian; sources of material; aid in selection; sales catalogs; methods of ordering and accounting.

Children's reading: finding lists—for teachers; for children.
Incoming books: invoices; accessioning; marks of ownership.
Cataloging and classification: systems of each; forms; preparation of cards.
Library routine: loan and charging system; call-numbers; shelf list.
Binding: material, pamphlets, general care, repairs.
Library associations: national, state, local; library schools.
State laws relating to school libraries.

In conclusion, then, I would say that what is imperatively needed and must be done is not for normal schools to train professional librarians for public-school libraries, for these libraries cannot afford such luxuries even if they needed them, but to train teachers in library methods and in the use of books so that they may manage effectively the public-school libraries in connection with their teaching, and in doing this may do much better teaching and render a much greater service to education and the state than they could possibly do otherwise.

INSTRUCTION OF ALL PROSPECTIVE TEACHERS IN THE CONTENTS AND USE OF LIBRARIES

ELIZABETH T. SULLIVAN, CRITIC TEACHER, STATE NORMAL SCHOOL, LOS ANGELES, CAL.

The question for our consideration is—is there need for instruction of prospective teachers in the contents and use of libraries, whereby student energy may be directed? The testimony of librarians and county superintendents is valuable to us here. The experience of these two classes of public officials leaves us in no doubt as to the general need for instruction in the contents and use of libraries. That the same complaint can be made by librarians in normal schools receiving students from high schools and universities would indicate that mere exposure to libraries for from twelve to sixteen years is not sufficient to teach the use of libraries. The inability of even these classes of students to use a library economically is indication enough of the need of direct and systematic instruction in library method.

Indeed, there are two sides to this question of students' general inability to properly use a library, and in justice to the student, both sides should be considered in this connection. There seems to be a tendency among library management to provide for the distribution of books of reference to the patrons of the library, thus saving time on the patrons' part and subsequent labor on their own. One can well see the argument for this arrangement, but does it not preclude entirely the friendly contact of students with shelves of books whose covers alone suggest much that lures the incipient student-mind to fertile fields of knowledge? This ready library service, it seems to me, has its drawbacks.

Then, too, the tendency, in secondary schools and universities for instructors and professors to furnish students with classified reference lists of subjects, while excellent in itself, as any student will testify, is a direct drawback in giving ability in looking up work. These books are asked for at the

librarian's desk and if all are out the student has a legitimate excuse for appearing in the recitation and answering "not prepared," if he happens to be called on. That general browsing about in libraries which in itself teaches the run of libraries is unwittingly being discouraged.

These evils, for such I feel they are, are brought about by overearnestness of instructors for the progress of their own subjects. They may not be evils from the standpoint of the student, technically considered, i. e., one registered in a class to meet the demands of the instructor of the class. As a student he is getting along comfortably on the instructor's crutches and when he receives his diploma he will then throw aside his crutches and exercise his own legs in business or other branch of activity where a limited use of books is required, if any at all.

For those then who are guided thru the educational system until they have acquired something that passes for education, this systematic service rendered in the choice of books and in the supplying of them by the librarian is not especially harmful. But how does it affect the student who terminates his school days early in life? He has no instructor's guide to serviceable books, nor has he a syllabus of his subject to aid him in asking for books from the librarian. Modesty, pride, or a weak student spirit may keep him from making the advance to the desk, while free access to the shelves with some definite idea of how to use their contents to serve his ends might make a real student of him.

Make your way into any library any day but more particularly any evening. Take up your stand where you can see into the reading-room of the men and boys. What an interesting motley of humanity is represented! The ones that most touch the heart are the care-worn and toil-worn, yes, dirty and ofttimes ragged middle-aged men and boys. Watch the eagerness with which they read. You wonder what they are reading. Ask the librarian what they get from the shelves, or what they ask her to direct them to when they ask at all. The current fiction? The light magazine? No. She will tell you that they have come to spend an evening with the best minds in science and history and ofttimes to read Plato and Aristotle in the original. Pity changes to admiration for the mind that is "the standard of the man." And these are the men and boys who have no time to waste. What time they are taking now they are taking from their rest. These are the people who need instruction in their limited school days in how to conserve their energy; in how to find a book on a subject and how to tell at a glance whether that book contains what they are after.

Again, familiarity with the arrangement of a library, together with the habit of frequenting one, may become the salvation of many a young man and woman stranded in a strange city without friends. It gives them a safe and wholesome place to spend an evening away from much evil that abounds in all large cities.

But to one class of students more than to any other is the need of instruc-

tion in the use of books more urgent. I refer to the normal-school students. They are not of the class that lays aside books when school days are ended. They are not of the class whose school days end early. They form a distinct class and in meeting their needs you meet the needs of the other two classes, for is it not on these that the other two depend?

For normal-school students, then, instruction in the generally accepted subjects is not enough. Preparation in the economical use of the tools of the various subjects cannot be neglected. Let us consider for a moment the positions in which normal-school graduates find themselves where a knowledge of libraries is demanded. As county-school principals they have the expenditure of the library fund for books. As librarians and grade teachers they have the suggesting of material for the library. They serve in this capacity both in starting a library and in adding to a nucleus already started. Should this work be undertaken wholly without preparation? What should determine the selection of books in starting a library? What should influence the choice of books to be added to one already started? Shall it be the public taste, which, in a certain case, was used as the standard of selection, with the result that the girls wept over Bertha Clay's novels and the boys fought over the biographies of Frank and Jesse James?

Is there any reasonable excuse that this important feature in public instruction should be left to the whims and tastes of the unthinking? When we would furnish a laboratory we call in the advice of a specialist. When we would furnish the tools for any other department of work we call on an expert for advice; but when it comes to the supplying of a school library which is to furnish the material for the carrying-on of general school instruction, including the special phases as well, we are content to leave the matter somewhat to chance.

The primary-teacher will generally demand full sets of easy reading-matter for her work. The grammar-grade teacher, believing that the success of a school library depends on the number of books read, will choose full sets of Jack Hazzard, the "Pansy Books," and the like, which are read by a few good readers. Still another class of teachers, influenced by persuasive book agents, will run the district into debt by buying several large dictionaries and a set of encyclopedias, which the teachers may not use at all because it may not be expedient for them to do so.

It is readily seen that this important phase of instruction cannot be left to chance. Definite and systematic instruction in it should be provided for in normal schools. This instruction should set forth the principle guiding the choice of books for a small library and that guiding the choice of books for a more fully equipped library. Young teachers should be cautioned against exercising the book-buying prerogative merely as a prerogative. Books should rarely be bought at the beginning of a teacher's term in a school. Rather should the choice of books grow out of the needs of the school as made evident by some weeks of work.

Systematic instruction should be given somewhere in the normal schools, and, by the way, generally is given, I believe, in the training-department, in the profitable handling of work by means of a few copies of supplementary books, thus making possible a greater variety of choice. Interest of classes varies from year to year and extensive sets of books may go practically unused as far as systematic instruction is concerned. In most cases large sets of books should not be bought for the three early grades. These children rarely can read them themselves. Their teacher or parents must read for them. One or two books of each set are sufficient and thus a wider range of interests is met by the same expenditure of money.

To instruction in the choice of books for libraries should be added instruction in some simple system of classifying, cataloging, numbering, arranging, and distributing of them by the librarians.

Thus far we have dealt with the mechanical side of the supplying of books. It remains to consider the professional side, so to speak, of the proper use of the books when supplied. If there is need of instruction in the first and simpler phases of the work, how much more need is there for instruction in the latter and more difficult phase. Let instruction in the use of books be a subject in the normal department and one to be handled with the children in the training-school as well. Let this work be done under the guidance of the librarian or other person appointed to do the work, after the manner of other subjects. This need not entail any waste but be done in connection with all other subjects, making use of the reference lists of the several teachers. Prospective teachers who have this opportunity of forming habits of study are better able to assist those who may come under their charge in forming similar habits.

Certainly it is not asking too much to require all normal-school students to be familiar with the classification of libraries that generally obtains in the United States and Canada, namely the Dewey decimal system. To know this alone is to make one feel at home in any library.

The next step of importance is to obtain a knowledge of the card catalog; how it is made; what uses it serves; what the numbers mean and how a book may be found on the shelves.

The book having been found, it is of advantage to be able to determine at once whether it contains what is wanted. Instruction in the use of indices and tables of contents is imperative. The ability to quickly cull a book is indispensable to any student who expects to get things done. The book may give but a hint of what is required and the use of several collateral, or reference books may often be necessary to "run down" a subject. All students need this training. It takes patience on the part of both teacher and student, but knowing how to consult books for information is often of more value than the facts themselves. Too often now this work, for lack of ability on the part of the class in general, is given to the brighter students to do.

Early in the course should come instruction in gathering all that may be gathered from that wonderful storehouse of information—a dictionary. Even

with daily handling there are always some pupils who do not know just how much information a plain unabridged dictionary can offer, with its various appendices and supplements. This instruction should come early in the course of the prospective teacher and of the pupil as well. Simple dictionary work is begun with satisfactory results in the fourth grade. The distinguishing characteristics of the several dictionaries, namely the *Century*, *Standard*, *International*, and Murray's *English Dictionary*, should be discussed and well understood by student-teacher and pupil.

Chamber's *Book of Days* comes early in any list of books useful as guides to information.

Next in importance in "running down" information comes the indices—the *Statistician* for the early grades and *Statesman's Year Book*, the *Newspaper Directory*, and Lippincott's *Gazetteer* for high schools.

Next would come a knowledge of the use of the general encyclopedias—what investigations the *Britannica* will serve and to what an American cyclopedia will lend most assistance.

After the general encyclopedias will come the special-subject dictionaries and cyclopedias, covering antiquity, history, literature, etc., also biographies of special countries and special classes. *Who's Who* is invaluable in furnishing information regarding living people.

Ready access to that indispensable literature which is ever appearing in periodicals would be well-nigh impossible were it not for *Poole's Index*, with its supplements, the *Annual Library Index*, *Reader's Guide to Periodical Literature*, with its cumulative index, and lastly the *Library Index*. For students in the upper grammar grades and certainly in the high schools, a knowledge of the service of these indices, especially Poole's, is desirable. Acquaintance with the periodicals themselves should be cultivated in connection with the use of the keys to them.

For an extended treatment of any one subject the student will find help in the *Cumulative Book Review Digest*, issued monthly by Wilson & Co., Minneapolis. Giving the scope of a work and criticisms of the press, the student consulting such a book is enabled to make more definite selection of material.

Some books of quotations, too, may lend themselves with profit to the process of instruction, and direction in their use should not be omitted.

Pictures continue to hold equal place with books as powerful educators, especially for the young. Provision should be made for their addition to the library supply. They abound in magazines, newspapers, railroad guides, and advertising material of all kinds and are ofttimes of a character well suited to schoolroom purposes. Instruction in the mounting, classifying, and numbering of these should be included in a normal course. The numbers should tell the subject. Pictures of places should fall under class, Geography; of people under class, Biography; of nature under class, Nature-study; copies of art under class, Art, etc.

The same principle carries over to the use of magazine and newspaper

articles. These furnish some of the most valuable material for children but are lost to them for lack of arranging and systematizing. Teachers have a faint idea of just how this material might be used but are at a loss to find it when it is wanted. If teachers were trained in the mounting and sorting of valuable clippings under subjects, such as geography, history, biography, and the like, and in indexing them, they would find that the time was not idly spent. The separate mountings should not be bound but loosely strung or merely inclosed between two stiff covers, thereby permitting of a somewhat general distribution among classes. This work helps in two ways. It extends materially the supply of the library at little expense and furnishes wholesome occupation for the pupils who always have their lessons and never have enough to do.

This cursory treatment of the necessity for and the material of instruction of all prospective teachers in the uses and contents of libraries with a view to directing student energy is to be considered as merely suggestive. My task was to add one more word to what has been said before on the necessity for library instruction. The systematic working-out of the material for instruction is respectfully left to those who will be appointed to do this important work.

But that students shall be instructed in the material of libraries is not enough. They should be put to the task of "running down" information as a test of their ability. Furthermore, in normal schools, they should be assigned to handle this work in the training-school as any other subject might be handled. One student-teacher might be assigned to look after the reference side of the work of several classes. Children, as they progress in the grades, should show increasing skill in the use of books and this increasing skill should be the measure of the skill of the teacher, for on the ability to use books depend the usefulness of the teacher and the student possibilities of the taught.

Was not Carlyle in one sense right when he said: "The true university of these days is a collection of books." The same might be said in a measure of all schools. Books might be regarded as mere signboards and the teachers only as wise guides.

Someone has said, "It is an inspiring thought that the proper bringing-up of a commonplace American child requires us to sift out the gold nuggets from a whole civilization." This thought has ever inspired the normal schools, but let it not be said of them that, while they engaged in the process of sifting, they looked not to the training of sifters.

PRESIDENT'S ADDRESS

THE LIBRARIAN AS A TEACHER

J. N. WILKINSON, EMPORIA, KAN.

The librarian should be estimated on the basis of ability to teach. Too frequently, the librarian's work is estimated as people estimate the work of a

janitor. The low view holds the librarian responsible mainly for such things as keeping the books in their place and keeping off the dust. These things are, of course, important but only as they contribute to the real end of the librarian's work, which is the teaching of the reader. Teaching is the highest function of the human being and the conscious giving of instruction is the activity that most distinguishes man from the other animals. He who creates and stimulates a desire for knowledge and places that knowledge within the reach of the seeker is doing the very best service as a teacher.

The librarian is in charge of a field where many go at first for casual browsing only. He should be able so to herd all who enter this field that they will find rich pastures and be sure to come again. The reader may come seeking an inferior book, but the librarian, if not able to furnish the book sought, should be able to find some other that will interest. The reading of inferior books would not be a loss of time if it should be the way of approach to an interest in good books. Without the guiding influence of a living present personality, the habit of reading worthless books is likely to become fixed and the time spent upon them to be worse than wasted. If a reader is to grow, he must be helped to a comprehension of books beyond his grasp. The putting of the question, "Understandest thou what thou readest?" opens the way for instruction unto life and salvation just as surely now as it did in the days of Philip and the eunuch.

While the library is properly a laboratory for independent research, the students in this laboratory need an ever-present teacher in the person who has charge of the laboratory. When the reader calls for a book or is looking along the shelves, the librarian can learn his taste and, by an intelligent interest in what interests him, guide him into the way of life. The Wisconsin plan of employing a man to furnish members of the state legislature all that is in print on a subject under discussion illustrates the librarian's teaching-function. The reader needs not merely instruction in bibliography but in such matters as how to make notes for personal use.

The librarian gives instruction to many people not commonly thought of as under such tuition. Ladies' clubs get the librarian's help in making their programs and for individual preparation on the subjects. Books are selected by the librarian to send to the fire departments and street-car barns of cities and the lighthouses and life-saving stations of the seacoasts. Pictures are selected for loaning to the homes that the taste of the whole family may be improved. The librarian goes with a supply of books as a missionary to the slums. The recreation parks and the library children's rooms have the story-telling hour where the librarian is doing the most difficult kind of teaching and doing it so as to add to the interest in the books that are offered there. The teaching librarian guides the reading of the children so they will not continue in just one class of books and thus incur an arrested development.

The librarian is, in a sense, the head of a great school open to all every day of the week and every hour of the day, and calling to aid as co-operating

teachers the authors of all lands and all ages. This school teaches on a liberal plan what the ordinary day school gives in more intensive fashion. In view of these facts, it would seem that the librarian should be selected with reference chiefly to natural fitness for teaching and should be trained with strict reference to effectiveness as a teacher.

HOW THE TEACHER CAN HELP THE LIBRARIAN

MISS MIRA JACOBUS, LIBRARIAN, PUBLIC LIBRARY, POMONA, CAL.

There is much that might be said about the theoretical relation of the library and the school. But as to this, in the words Mr. Hale put into the mouth of his immortal double, "There has been so much said, and on the whole so well said, that I will not occupy the time." So, not laying again the foundation, we will adopt the distinction already laid down by others, that "the library's mission is to continue the work of the schoolroom along new lines," "that the school should furnish an impulse to individual tastes, and the library the means to direct that impulse into systematic lines of reading."

We may go at once to the heart of the matter: how best can the teacher impart this impulse?

First, she must herself read books and love them. Nothing will take the place of this "invincible love of reading." The reading she does to get information must be supplemented by that she does because she would starve without. And this again must be supplemented by what acquaintance she can get with children's books.

So much for the preparation of the heart. What is she to do in the classroom? She may first systematically train her pupils in the use of books as tools. The primary requisite is a knowledge of the alphabet. This is, I believe, no longer fashionable, but it is handy to have.

The boys and girls should be taught the makeup of a book, the special use of title-page, contents, and index. We find many a person who does not know these things. You will help them greatly if you do no more than this.

When they have learned how a book is built, tell them that as books have indexes so have libraries. If you can, explain the use of the main bibliographic aids, the shelf lists, the catalog, the periodical indexes, etc. But at any rate, let them know that a library is not a trackless wilderness. It has guideposts and guides, in the persons of the attendants. Encourage them to learn the main trails.

Teach them the proper care of books, and respect for library property. Handle books carefully, and insist that students do the same. If you have a loan collection of library books in the schoolroom, have a formal record of those who borrow them. If the class is free to pick up a book and carry it off, as some advise, the books will indeed be picked up, and not laid down again. A business-like record will save the trouble of replacement.

So much for the use and care of books as tools. They are that, but to

you and me they are more than that, they are friends. Shall we not introduce them to the children? The schools of Elgin, Illinois, have (or had, for I am not sure just what they are doing now) a very good plan for this. Lists of books are copied on the blackboard of each room. The children are urged to read five, and encouraged to read more before they are changed at the middle of the year. No compulsion is used, but each pupil is credited with the number read. The books are freely discussed after reading.

In Pomona we use a plan which we think excellent. A list of recommended books is made out for each grade from the third to the eighth. These books are all in the library. The children become members of the library, draw their books like any other citizens, and use them in the reading classes. Each child keeps a record of the books he reads. He may read as many or as few as he chooses, and just what he chooses, within the limits of the carefully selected list. I need not point out what opportunities such a plan gives the teacher to direct and inspire the child's reading, to teach him the use of the library, to make him a lifelong friend to books.

What about the teacher in her direct relation to the library? How can she help the librarian and herself?

First, you may acquaint yourself with the local library, its rules and its tools, its limitations and its resources. It will not take you very long to get an idea of its scope in your own field. Ask to see the shelf lists and the catalogs. Even if the shelves are not open to the public, you can probably get permission to examine them. Ask the librarian what other material is to be had along your line of schoolwork. If the library issues a bulletin of new books, keep up with this. Then when you send your class to us, you will not bewilder them and drive us into a frenzy by bidding them read what is not there and never has been.

Learn to ask for the specific subject you have in mind. Let your culture demonstrate itself in your clearly defined requests. A man once came to me and asked for books about fruits. I gave him some general works of reference, and asked what fruit he was especially interested in. He replied, "What I want is the onion." I ran down the odorous vegetable, and set before him a new lot of books, but after examining them he still did not look satisfied. "You see," he finally said, "what I really want is the effect of the onion on the human system." This is about the way most people present their needs. The skilled and patient librarian can ascertain your real object. We develop an intuition about it. But it takes time, and not always do we have time, and not all of us are patient, I am sorry to say.

The New York Public Library has arranged lists of books for each week, to correspond with the schoolwork. The books are set aside between the dates given. Other libraries would do the same and gladly if you would tell us what you are to need. So if your plan book calls for the life of John Adams the last week in October, why not notify the library and ask that it be reserved, or purchased if not already on the shelves. This will be a help in several

ways. Library funds are usually limited, and we buy first to meet real needs. Second, we usually have some necessary red tape which prevents book-purchase at very short notice. While for an occasional emergency the tape may be cut, such a practice is unbusiness-like, and, if a little forethought be used, not often necessary. Third, and here is where your bread on the waters returns to you, you will thus be reasonably sure of having the book when you wish it. Knowing it is needed on a certain date, it will be picked out from the other new books and hurried thru or it will be reserved from general circulation. Or, if old and disabled, it will not be sent to the bindery till after you have used it.

If you can not make out a list so far ahead, you can at least let us know a few minutes beforehand if a class is to be sent in for study. Send a boy ahead, or telephone in the morning that they will be in for material on the tariff or industrial arbitration, or Arbor Day. It takes little of your time, and it helps us wonderfully. See how it works. At 4:30, when everybody is asking for the last novel, and all the club women are getting up papers, in come twenty-five youngsters, each with a hazy but urgent demand for something on arbitration. It takes some time to translate their request into its original form, that in which you gave out the subject. It takes a while longer to get together twenty-five good articles. In the meantime, the children are wandering aimlessly about. Our caustic old gentleman—every library has one, and he is a fine mirror for librarians—asks you if you are conducting a kindergarten, and why these children are allowed to disturb real workers. Or, maybe the class does not all come at once. One or two canny ones do, quietly, draw out the best material, and keep it. No one else has any show. Now look at this plan: word comes in that the class is to use the references on industrial arbitration between the dates named. May the books be held at the library? The books are collected, marked non-circulating, and placed an a special table. A list is made. The boys and girls settle down at once, and the fiction-reader, the club woman, the caustic old gentleman, and the timid stranger, all get their meed of attention.

Apropos of reference work, please look upon me as pleading with you in the name of all the librarians of the country, when I say this. Don't draw out all the books of the library on a subject, and then send your class to the library to look up that same subject in those same books. This is the universal crime. When the class comes in we may explain all day that the books are out. The answer is ever the same, "But Miss Smith said we would find the books in the library." I wish this was an unusual thing. But it happens daily. Please, please don't.

Familiarize yourself with the possibilities of books, and do not send children for information which cannot possibly be had. An infant once came to me for statistics of persons killed by fire and flood since the beginning of the world. Not very long ago a youth was sent in for a statement of the private capital of United States citizens that is invested in foreign countries. The *World's Almanac* will do wonders, but it cannot help there.

Remember that "sources" are not always to be used. There is a curious prejudice among some people against the encyclopedia. I do not know why. Most questions asked by most people are answered to their best satisfaction by either the encyclopedia or the dictionary. But many a pupil who hardly knows the order of the alphabet is sent in with instructions not to use the encyclopedia. You will say, "This research work is to teach the use of books." True, oh king! So is a college exercise in the method of least squares to teach mathematics, but you do not assign it to a sixth-grade boy.

It is not so very long ago that a little girl in the eighth grade came in for something about kitchen middens. The child was from an unlettered family, and of no very great intelligence. Knowing this, I gave her Champlin's *Young Folks' Cyclopedia of Common Things*. It contains a simple account of kitchen middens, all that could possibly be required in gradework. The child refused to use it. "Teacher said not to use the cyclopedia." The only other material we had was in archaeological works just as intelligible to her as so much Greek. In the name of common sense, what was gained here by using "sources"? It would have helped that child, that teacher, and myself, if I had been allowed to give her the book best suited to her.

Again, please remember that the library has its rules, and that the library board has scorned delights and lived laborious days adjusting them to bring about the good of all. You who inculcate obedience should not reckon our laws as naught. If we do not renew books for you, it is because someone else needs them. We try to look all around the circle. Will you not look with us, and away from your own tiny arc?

Remember, too, that the library likes order. We like to preserve the atmosphere of quiet, of dignity, that befits the place and its purpose. You can help us in this if you will remember not to break our rules yourself. We like to have teachers work with their students in the library. But when a teacher treats the reference room as if it were her own schoolroom, and disturbs its calm by long and loud lectures, that is a violation of our rules and of the rights of others. If you wish to show your class how to use Larned's *History for Ready Reference*, or to discuss a passage in the *Lady of the Lake*, ask if there is not a room you may use. There is usually some place to be had, and many libraries have special rooms for no other use. How can we silence two young people who are noisily whispering if at the same time the teacher is doing the same thing? Now I can understand how the teacher may be drawn into talking about her work in the library rooms; but—*horresco referens*—what shall be said of the teacher who chooses the library to discuss chiffons with her dear friends? Had you seen, as I have, angry looks from men and women, and surprised looks from pupils, you would never permit yourself this discourtesy. You can help us just here very easily and very materially.

But the wise ladies answer me, yes, I return answer to myself, "All these counsels have most teachers followed from their youth up." It is true. Your burdens are heavy, but you are always ready to help us with ours. I take

pleasure in acknowledging our obligation, and in renaming this talk, "How the teacher *helps* the librarian."

HOW CAN THE LIBRARIAN AID THE TEACHER?

WALTER A. EDWARDS, PRESIDENT OF THROOP POLYTECHNIC INSTITUTE, PASADENA, CAL.

When this topic was first assigned me I thought it so simple and trite as hardly to be worth the effort of my pen. But now after some study of the public library and public-school situation I see my error. Instead of being too easy, the subject is of a difficulty far beyond my powers. Understand me. I do not say I cannot suggest a dozen desirable avenues of co-operation between the library and the school. That is easy enough. I agree with Hotspur that Owen Glendower is not the only man who can call spirits from the vasty deep. Why, so can I, or so can any man. But will they come when you do call for them? Ways in which the library can aid the school are obvious and anyone can point them out. But will librarians and teachers put the suggestions into practice? What is needed is not so much information about what can be done, as inducements to do it. It is not enough to say, "This is the way;" someone with influence or authority must add the injunction, "Walk ye in it."

For, many as are the opportunities for co-operation and great as are the benefits thereof, both to the teacher and to the librarian, it is a fact, astonishing but true, that in a great many towns co-operation is as yet unknown. It is indeed gratifying and encouraging that so many libraries are demonstrating the great advantages that flow from an intelligent and helpful relation with the public schools, and I may add that what definite suggestions I shall make are not original ideas of my own but are borrowed from the actual practice of scores of progressive librarians. A recent issue of the *Library Journal* declares that, "co-operation with the schools has perhaps greater possibilities of development and usefulness than almost any other branch of library activity." But it remains true that in a great many places there is absolutely no concerted action for mutual assistance on the part of librarian and teacher, no recognition of the fact that they have a common problem, that they are contributing to the education of the same children and that each has it in his power to lighten the other's burden and so advance the work each has at heart. Why do they persist in working separately, often at cross-purposes, each ignoring the tremendously important work of the other?

Perhaps one reason for lack of co-operation is the fact that the relation of libraries to the schools, tho often discussed, is still a comparatively recent question. For are not public libraries themselves of comparatively recent establishment, at least on the scale and with the universality we are accustomed to? I refer of course not to those great collections of books long ago established at intellectual centers, such as the great universities, but to that strictly

modern invention, the product of universal education and the general diffusion of the taste for reading—the public library. We are so familiar with it, at least with the external aspect of the buildings in which it is housed, that we forget how modern it is. Let me remind you then that in twenty-eight years libraries multiplied in the United States more than threefold, increasing from 2,039 in 1875 to 6,869 in 1903, while the total number of volumes in these libraries increased from eleven and one-half million in 1875 to fifty-four and one-half million in 1903. It will, I think, be admitted that this rapidity of increase constitutes of itself a new problem. I am indeed aware that the figures I have quoted, apparently the only ones available, include school and college as well as public libraries. But certainly the rate of increase of the latter is not less than that indicated in the combined statistics.

But if the public library as a means of satisfying the newly awakened general craving for reading is of recent establishment, how much newer is the conception of it as a distinctly educational institution! Says Larned: "It is not yet a score of years since co-operation between school and library was commenced." Is it then to be wondered at that there still remain places where the advantages of co-operation are not clearly perceived, in fact, where the thought has never been suggested? And we can understand why even in less benighted communities, whose officials do sometimes hear echoes of the progress neighboring towns are making, this new plan is not immediately taken up and put in practice. Some allowance has to be made for a natural disinclination to depart from the established order and strike out on untried paths. Conservatism is strong, even in America, and even in the schools. It seems easier to go on in the old way than to enter on a new one which may lead to unexpected problems and dangers. The librarian hears co-operation proposed, but no provision has been made for it in his library; he has no spare time for it, nor has he made any special study of it. And in order to serve the school he must have some definite knowledge of school methods and the curriculum. Quite naturally therefore he hesitates to enter a field where he is not entirely at home. And as for the teachers, they have their regular work and their accustomed methods of doing that work. The new plan may possibly prove helpful, but it certainly is new and therefore requires some study to master it, some forethought and originality to carry it out. Moreover, the very fact, and it is a fact, that some teachers are not so familiar with books as to be competent to direct the reading of their pupils makes them hold back. They dislike to betray their deficiency to the librarian.

Perhaps also there may exist a little unworthy jealousy on the part of both librarian and teacher. Each is master in his own domain and objects to surrendering even a portion of his authority to another. Each anticipates and is prepared to resent any interference and dictation from the other if an attempt should be made to work together. It is certainly most unfortunate if these and similar feelings prevent a mutually beneficial co-operation between teacher and librarian, and our business is to overcome them if possible and encourage

an intercourse which shall be on both sides considerate, tactful, sympathetic, helpful.

From what I can learn of the situation I think teachers are more to blame for the absence of co-operation than librarians. The initiative naturally falls to the teacher. For the primary object of co-operation is that the librarian may render assistance to the school. There is no reason to doubt that so far as they have time librarians would generally be glad, at the suggestion of the teacher, to make out book lists, compile references, group together special books needed at a given time for study, purchase desired books, etc. But how often do teachers neglect to offer the suggestion! For instance, a certain librarian recently said to me, "Our library always purchases all books recommended for purchase by teachers, and yet very few teachers avail themselves of this privilege." And she went on to say, "Teachers send their pupils year after year for the same books, tho if asked we could suggest valuable new books, but we aren't asked." Teachers neglect to keep the library posted as to coming changes in topics. They fail to warn the librarian that a whole class may descend upon him on such a day all seeking information on a common topic. In a dozen ways they fail to make the most of the educational opportunities which the library affords, and in too many cases they ignore them entirely.

For when you come to think of it a library possesses immense educational possibilities. It is a mighty educational engine, ranking in power not far behind the school, the church, and the daily press. And its great power ought to be directed so that those who come under its influence may get the most good possible from it. To be sure the adult patrons of the library would probably resent as an impertinence any suggestion from the librarian that they were not getting the educational value from the books that they should, and any attempt on his part to supervise their choice of books. Some temperance workers make little attempt to reform the habitual drunkard, saying that he is beyond hope and that the natural working-out of physical laws will soon eliminate him from the situation. So some librarians may say that they have no hope of reforming the grown-up novel debauchee. For he wont listen to their advice nor take their prescriptions. To be sure all librarians are not so pessimistic. A certain library in the central west boasts of having reduced novel-reading from 80 per cent. of the total to 59 per cent. as a result of a well-defined and consistently pursued policy. This librarian, and there are doubtless others like him, thinks he has a responsibility for his patrons' reading and he has actually exercised some decisive influence over it.

But whatever one may think of the men and women, is there any doubt as to the librarian's duty toward the children? For they are still amenable to suggestion. They certainly form a very large fraction of the total patronage of the public library. In some cases the ratio of children using the library to the total number of users is as high as 37 per cent. In the Los Angeles public library the patronage of the juvenile department is equal to the total patronage of all the other departments together except novels and the magazines. Merely

on account of their number, then, the children are entitled to every consideration and to every provision that can fairly be made for their convenience. But there is another and better ground for their claim on the good offices of the librarian. In this great army of children the librarian may, if he will, train up more intelligent users of books than his present adult patrons. They come to the library with tastes unformed and with no reading-habits. They are not only open to suggestion, they desire it and ask for it. And they need it so much. As Emerson says, here are friends waiting to bless the child, anxious to unfold to him their treasures of wisdom and entertainment. But they are under a spell and cannot speak until spoken to. And as the enchanter has dressed them, like battalions of infantry, in coat and jacket of one cut, by the thousand and ten thousand, the boy's chance of hitting on the right one is to be computed by the arithmetical rule of permutation and combination—not a choice out of three caskets, but out of half a million all alike. The chances are tremendously against him—unless some one will help him. And here is the librarian's opportunity and duty. And here furthermore is one of the most important ways in which the librarian can serve the school. Teachers are realizing the immense power for good or evil which books exercise in the lives of their pupils and the need for the wisest counsel in their use; and they should gladly welcome the expert assistance which the librarian can give them in planning both the collateral and the miscellaneous reading of their pupils.

It is an interesting fact, proven by careful investigation, that good library facilities, including a good librarian, improve the quality of reading much more than they increase the quantity. Where there are no libraries the children still find something to read, usually books of the most worthless and even harmful character. Establish in that community a good library and they read not perhaps many more but certainly much better books.

But not only in directing the reading of the pupils may the librarian assist the teacher. In the course of frequent conferences between them abundant opportunities for co-operation will suggest themselves, to the lasting benefit of the children. The librarian will keep informed as to the work the pupils are about to have in school and he will be able to prepare lists of references and parallel readings on the various topics, perhaps in the form of printed slips for distribution to the children. He will anticipate Arbor Day, the various poets' birthdays, and other special occasions, and will have ready against the need lists of books helpful for special programs and for further reading. He will recommend books for general reading, classified to suit the age and advancement of pupils in the different grades. He will be able to suggest special books to meet the needs of peculiar cases, following the example of Mr. Caxton in Bulwer's novel, who, you will remember, prescribed the reading of certain books to cure the mental ills of his son Pisistratus and Captain Roland. He will keep his eye on the magazines and promptly list any article which may prove helpful to pupil or teacher. He will provide a separate room for the use of the children, well supplied with the right books and made attractive with the

pictures in which children delight—and properly supervised. He will perhaps arrange for special school and classroom libraries, loaning *en bloc* such books as a given class will need, these to be given out to individual pupils by the teacher. Or he will from time to time group such books on certain shelves in the children's room, constituting a sort of temporary reference library for certain lines of study. He will on the invitation of the teacher meet the pupils at intervals and talk to them about the proper care of books, the use of the library for study and research, the use of the dictionaries, cyclopedias, *Poole's Index*, etc. These talks, by the way, are better given in the library; take the children to the library, not the librarian to the children. He will at all times encourage children to come to him for advice and suggestions about their reading and he will make his counsel so helpful to them that they will be glad to come. He will watch the reading of individual children so far as he can, and advise with the teacher for such further direction as may be desirable. He will establish the "story hour" as a regular institution, recognizing its great possibilities for good but also the fact that it must be in the hands of a specially gifted story-teller. Not everyone can make a success of the story hour. Don't hold up your hands in speechless astonishment wondering where I imagine the librarian is to find time for all these things. All this is simply the librarian's duty; this is what he is librarian for, and if he hasn't time he had better drop some of his other less important tasks until he can get an assistant.

Here the suggestion may be offered that in libraries employing several assistants the whole matter of relations with the public school should be in the hands of one person specially chosen for that purpose. The duties are highly specialized and may well demand special study and preparation.

But I need not pursue these suggestions farther. As I have said before, it is easy to name many ways in which the librarian may serve the school. The essential thing, and in some cases the difficult thing, is to induce the librarian and teacher to get together, to lead them to feel that they are colaborers and that each may and should help the other. The exact ways in which that help may be rendered must vary very much. Schools which possess pretty good libraries of their own do not need the same kind of assistance from the public library as less favored schools. The officials in charge of one public library will find it impossible for them to do for the schools of their city what the librarian in another city is enabled to do by reason of larger resources and perhaps larger liberty. But there is not a school so highly favored as not to need the help of the public library, and there is not a library which has not the power to render substantial aid to the schools of its city. If the spirit is really willing the flesh will prove to be not so very weak.

DEPARTMENT OF SPECIAL EDUCATION

SECRETARY'S MINUTES

FIRST SESSION.—Wednesday Morning, July 10, 1907

The meeting of the Department of Special Education was called to order at 9:45 A. M. in the Los Angeles State Normal School.

The opening address was that of the president, M. N. McIver, superintendent of schools, Oshkosh, Wis.

Geo. L. Leslie, director of science department, city schools, Los Angeles, then addressed the department upon the subject, "The Need of a Better Understanding of the Exceptional Child." This topic was discussed by James A. Foshay, ex-superintendent of schools, Los Angeles, Cal.; John T. Prince, agent of the State Board of Education, Boston, Mass.; W. M. Ruthrauff, superintendent of schools, Tucson, Ariz.; and Mrs. I. W. Huey, Upland, Cal.

F. M. Jack, state institute conductor, River Falls, Wis., read a paper, "Why Wisconsin Believes in Public Day Schools for the Deaf."

A report of the commission appointed in 1905 to examine into the relations existing between the educational work of the institutions for special ducation and the state departments of public instruction of the different states was submitted by Mary R. Campbell, chairman of the commission, and read by the secretary. Upon motion this report was ordered printed and the commission granted another year for further investigation.

A resolution was passed instructing the president to appoint a committee to recommend a plan for the investigation of the problem of the exceptional child and report at the next meeting of the National Educational Association.

The chairman then announced the following committees:

ON NOMINATIONS

J. P. Greeley, Whittier, Cal. Frank M. Driggs, Ogden, Utah.
Miss S. Sorensen, Milwaukee, Wis.

ON RESOLUTIONS

W. A. Gates, Berkeley, Cal. James A. Foshay, Los Angeles, Cal.
F. M. Jack, River Falls, Wis.

An adjournment was taken until 9:30 Friday morning.

SECOND SESSION.—Friday Morning, July 12

The meeting was called to order by the president at 9:45 A. M.

Frank M. Driggs, superintendent of the School for the Deaf and the Blind, Ogden, Utah, read a paper on "Self-Support for the Deaf and the Blind."

A discussion followed by Miss Jennie C. Smith, principal of day schools for the deaf, Oshkosh, Wis., and Miss Frances McKinley, teacher in the School for the Deaf, Olathe, Kan.

W. A. Gates, secretary of the Board of Charities and Corrections, Berkeley, California, then made an address upon the topic, "The Training of the Incorrigible."

The Round Table Conference was led by M. N. McIver, the president, the subject being "The Industrial Training of the Deaf."

The chair announced as members of the committee to recommend a plan for the investigation of the problem of the exceptional child:

M. P. E. Groszmann, Plainfield, N. J., *Chairman.*
Geo. L. Leslie, Los Angeles, Cal.
F. M. Jack, River Falls, Wis.
J. W. Jones, Columbus, O.
O. H. Burritt, Batavia, N. Y.

The Committee on Nominations reported as follows:

For *President*—E. R. Johnstone, superintendent, New Jersey Training School for Feeble-Minded, Vineland, N. J.

For *Vice-President*—Olin H. Burritt, superintendent of New York State School for the Blind, Batavia, N. Y.

For *Secretary*—Miss Jennie C. Smith, Eau Claire, Wis.

The report was accepted and the secretary instructed to cast the ballot of election.

Upon motion, the session adjourned.

FRANK M. DRIGGS, *Secretary.*

PAPERS AND DISCUSSIONS

OPENING REMARKS—THE AIMS OF SPECIAL EDUCATION

M. N. McIVER, SUPERINTENDENT OF SCHOOLS, OSHKOSH, WIS.

This department is well named the Department of Special Education. Our methods of instruction take into consideration the child. It would seem the most "pedagogical" in that it studies the individual. In this department the searchlight of science is turned upon the child. There is great danger of trying to fit the pupil to arbitrary laws, of making him adjust himself to a system. This is true of most school systems for normal children and is one of their greatest weaknesses. We seek, however, to discover the laws to fit the individual.

The Great Teacher said, "Consider the lilies of the field how they grow." In our special work we have happily reached the stage where we consider the child; the vital functions of the body, and the laws of his mental operations. This scientific understanding of him is destined to revolutionize our methods of teaching and discipline.

It is the right of every child to receive an education according to his capability. The test is not the amount of capability, but is there any capability at all; has the child any capacity for improvement? It is, indeed, the birthright of every child to be given an opportunity for soul growth and for the development of strength to enter into the delights of soul activity.

Our department deals with the education of those who are not blessed by possessing the natural heritage of a "sound mind in a sound body." It is highly proper and profitable that educators in the four great fields of special education—that of the blind, the deaf, the mentally deficient, and the incorrigible—should meet here for conference. Their platform is much broader than that of any other educational department. They have discarded the old-time motto of the "survival of the fittest" and behold! their motto is the broad Christian one of "making fit to survive."

Early in the history of civilization many defectives were regarded as possessed of evil spirits which must be exorcised by incantations or driven out by physical torture. Today a better understanding because of our broadening intellectual horizon makes us seek the cause in physical malady and attempt to remove that cause.

Our province as educators is not only to call to our aid the skill of the physician for curative and preventive purposes, but also to develop the latent mental powers; to seek to reach the imprisoned soul thru whatever avenues are open in the individual.

Defectives are capable of education. Of course this capability differs in degree, but is this not also true of normal children to a degree not usually appreciated? The cases of Helen Kellar and Laura Bridgman are noted examples of the possibilities of special education. In every state in our Union similar work is being done. We have all noted with intense delight the unfolding intellect of children to whom misfortune had closed an important avenue to the soul.

Let us examine our motives in this work. What ends are we striving to attain? This leads us to approach the discussion along two lines. The one is the practical problem of self-support. This cannot be ignored and appeals in a more popular way. The other is along the line of soul-culture.

Mere existence is a delight to the healthy person. "All healthy functions of the body are pleasurable." This is a maxim among the medical fraternity. Mere existence, however pleasant and necessary as a basis for the highest life, is not the true end of those "made in the image of God." The necessity of existence makes imperative the consideration of support of defectives, either by the individual or others, usually the state.

It is not necessary to establish by discussion the fact that the ability for self-support brings happiness to the defective in a greater degree even than to others. The fact that we are training defective children in every state to bear their part bravely, holding them many times to the same standards of accomplishment set for the normal child, has been a wonderful incentive to these handicapped children and a source of increased happiness. It brings a self-respect and a feeling that they are filling the place of men. It adds a dignity to existence.

Our discussions should deal, then, with the development of the power of self-support in the individual and also that which is of equal and greater importance, the development of the power to understand and appreciate the great thoughts of God that are immanent in the universe.

I am glad that we are to hear at the end of this session the report of a commission appointed a year ago to do research work along a certain line. Such investigations and reports must result in much good. I feel that further work of research and investigation along practical lines under the direction of this department would make it a power for good and should be encouraged.

Those engaged in this work of special education are accomplishing results

along a line which is incidental, yet of great importance, to the advancement of education. The results that are being accomplished in the education of defectives are making those engaged in the education of normal children conscious that they are not accomplishing as much as they should do. They are taking note of our methods and are applying them in the education of children whose powers of mind are not well balanced. In a number of cities special schools are organized along this line, and I predict that in the near future some modification of the organization of most school systems will be made whereby opportunity will be given for individual instruction where needed.

There is a solidarity of interest among those engaged in special education. Our aim is common and our motives the same. The welfare of the defectives of our commonwealth is and should be our first object of solicitude.

WHY WISCONSIN BELIEVES IN PUBLIC DAY SCHOOLS FOR THE DEAF

FRANK M. JACK, STATE INSTITUTE CONDUCTOR, RIVER FALLS, WIS.

The first school, the American School for the Deaf, at Hartford, Conn., was intended for all the deaf children in the United States. When these were found to be too numerous, other schools arose in various states, as "asylums" for the children, to the end that all those in any one state might be gathered into such an asylum. This policy of "centralization" was the prevailing policy of the people up to the time of the adoption of the "Wisconsin law," which is as follows:

> Upon application by the board of education of any village or city, made to the state superintendent, he may, by and with the consent of the state board of control, grant permission to such city or village to establish and maintain within its corporate limits one or more schools for the instruction of the deaf mutes who are residents of this state. The board of education of any village or city which shall maintain one or more of such schools, shall, thru its clerk or secretary, report to such superintendent and board annually, and oftener if they so direct, such facts in relation to such school or schools as they may require. There shall be paid out of the state treasury annually, in the month of July, to the treasurer of every such city or village maintaining such school or schools under the charge of one or more teachers, whose qualifications shall be approved by the state superintendent, the sum of one hundred and fifty dollars for each deaf mute pupil instructed in such school or schools at least nine months during the year next preceding the first day of July, and a share of such sum proportionate to the term of instruction of any such pupil as shall be so instructed less than nine months during such year.
>
> This chapter takes the power to organize day schools for deaf mutes in villages and cities from the common council of any city or the board of trustees of a village and gives the authority into the hands of the board of education instead.

It was found, even so late as the year 1900, that the centralization plan of asylums or institutes failed to reach about one-third of the deaf children. What then could be done to save these afflicted children who must otherwise grow up in ignorance and unhappiness? Wisconsin solved the problem by establishing day schools for the deaf as noted above.

The Wisconsin day schools go to the home of the child—to the very door of its home, yes, even into its home, for their influence is felt there, and the bond between the home and the school is strengthened in a way that is not possible when the school is miles distant. This is the chief reason for our belief in them.

Inasmuch as all deaf children will not go to day schools, nor all go to institutes, a combination of the two, as we have in Wisconsin, so that parents can take their choice and send where it best suits them, is sure to produce good results.

In the *First Annual Report of the Inspector of Schools for the Deaf*, made to the state superintendent of public instruction of Wisconsin, June 30, 1902, is found a very complete, yet concise, history of deaf schools, especially of the Wisconsin system of public schools for the deaf. The *Eleventh Biennial Report of the Department of Public Instruction*, of the State of Wisconsin, July 30, 1904, contains the account of the origin, growth, and development of these schools.

These and a little tract published in 1905 by R. C. Spencer, of Milwaukee, Wisconsin, are the latest printed information available to date regarding the Wisconsin schools. Copies of these reports may be obtained by addressing the state superintendent of public instruction, Madison, Wis., and R. C. Spencer, president, Spencerian Business College, Milwaukee, Wis. These publications are full of inspirational and instructive material and will prove helpful to those directly associated with educational institutions for the deaf, and who desire the story of the beginning and development and present condition of these schools in Wisconsin. Right here I must call your attention to the new compulsory education law in Wisconsin for deaf mutes. This law was enacted by the Wisconsin state legislature within the past few weeks.

The provisions of this law, chapter 128 of the *Laws of 1907*, are:

> Any parent or guardian having under his control a deaf child between the ages of six and sixteen years who is incapacitated for attending a common school shall cause such child to attend some public, private, parochial, or state school established for the instruction and education of the deaf, for a period of at least eight months during any school year.
>
> Any person who shall neglect or refuse to obey the provisions of this section shall, upon conviction, be punished by a fine of not less than $5 or more than $50, or by imprisonment in the county jail, not exceeding three months for each offense.

During the past three or four years there has been a marked growth in the establishment of day schools in Wisconsin. At present there are twenty of them well organized and equipped. They are located in villages and small towns as well as in the larger cities.

Wisconsin believes in these schools because they stand today for exactly the same underlying fundamental principles that actuated their founders in first establishing them; because they stand for the same broad principles of education that our public-school system stands for; because they stand, as they should, under the direct control, management, and supervision of the state

superintendent of public instruction, in just the same manner, and for the same reasons, as other public educational institutions of which the state superintendent is the head. Further, these schools stand as a recognition of the sacred rights of the unfortunate children of the state of Wisconsin.

In a general way it may be stated that public schools are established and maintained for the purpose of developing child-powers; put it specifically—to unfold the child to himself; to make him what his Creator intended he should become; to equip him with such power and skill that it will be possible for him to apply his knowledge to the practical problems of life; to make him an honest, intelligent, industrious, God-fearing, and useful citizen; to unfold a being capable of self-government, self-control, self-help; a living, thinking, charactered member of society who can live best for his fellow-men and his God.

The experience of twenty-five years in the organization, growth, and management of the public day schools for the deaf seems to emphasize the feasibility and wisdom of the plan of decentralization; of making them a part of the public-school system. Their increasing popularity today would seem to add greater emphasis. These schools are without doubt an important element of the public-school system, and give a broader view and wider horizon to its construction, power, influence, and accomplishments.

There are advantages and values attached to the day schools as conducted in Wisconsin to which I invite your attention:

First, the same course of study is pursued in these schools as in the schools for hearing-children, with one exception, and that is language. In this subject a special course is prepared by the state department. It is the custom to give a test in language once each year to the children of the deaf schools. It is conducted by the inspector and the papers are sent to the office of public instruction and there kept on file. In this work the oral method only is used. The aim being to make good speakers and lip readers.

Second, the majority of children are at home. Statistics show that approximately 85 per cent. of the pupils in these schools today, whose average age is ten and one-half years, live at home, in the midst of that freedom, that guidance, and that parental influence so significant to the life and character of children of that age. There is no other influence, be it ever so great, that approaches a mother's love and a father's wisdom during these tender years of a child's life. A child has implicit faith in his home. Suppose the child is not in his own home, and statistics show that approximately 15 per cent. are boarding in good homes, yet, in his case, the family is the unit. He enjoys the benefits and privileges of the family life, which is the natural life. We all know that in an institution where a large number are gathered there must be, of necessity, rules and regulations which restrict the freedom and cramp the activities of the children, and narrow the horizon of life's relations, duties, associations, and possibilities.

Third, the public deaf schools bring about closer affiliation with the public-school system as they are a part of it.

Fourth, the fact that the child is a member of the great public-school system is always with him; he feels it. By this environment he is continually trained to be a harmonious and useful member of society; the atmosphere of the hearing and speaking world in which he lives, cultivates his physical, intellectual, and moral side.

Fifth, the day school is not only a distinct advantage to the child but to the community; it interests the various organizations and social forces of the community in its important work. It is especially instrumental in fostering the spirit of co-operation in the homes and schools.

Sixth, these schools are more economical for Wisconsin. They save the state in round numbers $20,000 a year as compared with the institute plan.

Seventh, not only are these schools more economical, not only is it an advantage to the deaf child to be thrown in contact with the hearing-children, but greater than these material things is the effect of this close relationship upon the character of both the hearing and the deaf.

The school may be likened to a family of ideal type. In such a family the little weak deformed or sickly one is shown special loving care, and so with our little day schools; annexed as they are to the large public schools, they are given the tender fostering care of the school board, superintendent, and entire community. This encourages the deaf children, helps them to gain confidence in themselves, and, who can measure the good to those who extend the helping hand? This annexing of the deaf classes to the public schools, as introduced by Wisconsin, is now adopted by other states. And, as another progressive step, a similar plan has been adopted in various cities for the blind and mentally backward. Wisconsin is so thoroly satisfied with her success in the day-school movement for the deaf, that an attempt is being made to establish similar schools for the blind. Milwaukee has such a school.

A public deaf school appeals to the community, because its work is not only educational but philanthropic. As one of our noted educators has said, it displaces the old-time selfish dictum of "A survival of the fittest," and makes the afflicted child "fit to survive." In this it is the gospel brought to earth; it is Christlike work. It is because of this element in it that every community where the day school is established will not willingly part with that school. It is a continual object lesson to other teachers and pupils. It helps the deaf by enabling them to be like those around them; it helps the hearing by broadening their sympathies and their charity for others. It means the altruistic spirit prevalent in the community.

Knowing that the state inspector of the deaf schools had spent time in looking into and studying the nature and character of the home life and work of the children, I asked her views on the question and quote to you her answer:

As a rule deaf children, in their own homes, enter into its domestic management and life as active members. I have visited nearly all of the homes outside of school hours so that I might observe the home life of the child. I have found the older girls at various occupations; sweeping, dusting, ironing, scrubbing, cooking, making beds, mending,

sewing, doing fancy-work, etc. The boys get in the wood and coal, run errands, split and saw wood, repair fences, build doghouses, carry in water, and frequently help wash dishes, iron, etc. The homes of the majority of the deaf children in our schools are those of the ordinary type, where each member assists in the family work. As a rule the children attend church and Sunday school and their schoolwork extends to the home, so that the bond between home and school is strengthened. The interest manifested by the other members of the family in the schoolwork of the deaf child adds much to his happiness.

Coming as these statements do from one in authority and an eyewitness, they are freighted with significant meaning.

Wisconsin believes in the day schools because they are representative of that pure, broad democracy, the corner stone of our public-school system; because, the school improves and elevates the class of unfortunate children (the deaf, hard of hearing, and those having defective speech) and lightens the burdens of men; because, the day schools are an advancement along educational lines. The oral method is a sympathetic response to the life ties in the home. Because, the girls and boys who have gone out from the day schools are equipped to engage in honorable pusuits, are comfortable and happy, and become good citizens who are equal to the responsibilities of life; because, approximately 240 of the 315 pupils enrolled in these schools during the past year lived at home.

It is not necessary to mention more of the many excellent reasons for our belief in the Wisconsin day schools and our loyalty to their maintenance. We believe, most of all, in the Wisconsin day schools for the deaf because they fill so large a place in the very heart of saddened homes.

SELF-SUPPORT

FRANK M. DRIGGS, SUPERINTENDENT OF THE UTAH SCHOOL FOR THE DEAF AND THE BLIND, OGDEN, UTAH

It is with pleasure I address you this morning upon a subject of vital importance, especially to those of us who are directly concerned with the education of the deaf, the blind, and the feeble-minded. With these children the problem of self-support appears more serious than with normal youths. The state, at great expense, undertakes to educate the defective child; how can this process be carried on without pauperizing him? No one doubts that institutions for the education of these classes should be maintained, and yet the question arises, can or should they be made self-supporting? If for some the training afforded by the state does not result in independent citizenship, how may the dependent ones be made to support themselves? The problem is a grave one when we consider how handicapped our deaf, blind, and feeble-minded are. Our responsibilities are made doubly difficult by their deficiencies. How shall we fit them for life's struggle after school? What employment is open to them outside of public institutions?

My remarks on these questions, in so far as they are based on actual experience, will have direct reference to the deaf and the blind only.

As to the first question, "How can we educate the deaf and the blind children to such a degree as to make them self-supporting and valuable citizens?" We are dealing with boys and girls who, more than other children, need the kind influence and gentle leadership of the teacher. Their training in school should be not only a preparation for life, but life itself with all its problems. Education is growth and development, physical well-being, mental improvement, and moral culture. Life in school is life in all its aspects, or ought to be, and the life lived in school should indicate and greatly determine what the future usefulness of the citizen is to be. The institution which fails to train its pupils to understand that it is as important for them to do as it is for them to know fails to make of the boys and girls intrusted to its care independent men and women.

If we are to educate and not pauperize the child, we must train him not only to do things, but to do them without help. We are growing only when we are free; we are free only when we can assume the responsibility of doing something. There is a consciousness of weakness and a consciousness of power. Children may go to school and not live, or grow, or develop as we would wish. A teacher may teach, and teach hard, and yet not produce growth. Too many of us, I am sorry to say, help to imprison our pupils by doing for them the work we are paid to lead them do for themselves. The teacher who carries home written lessons, and corrects errors the pupils should correct for themselves; the pedagogue who diagrams sentences and solves problems in detail, while his pupils sit in idleness, is a robber, stealing from his boys and girls rights which should be aids to their future usefulness. All agree that self-effort educates, and that the person who is to be educated must put forth the necessary energy to learn, or forever remain in darkness.

The first step in the training of a child for independent citizenship is to let it feel the influences and see the beneficent results of self-support. The whole atmosphere of a school must be filled with the spirit and the love of that useful work which enables man to support himself and others, and at the same time crowns him with self-respect, independence, and honor. We can educate children without making paupers of them only by creating within them a love for work; we must make them understand that it takes work to secure an education, then more work to keep it, and yet more work to use it, and that the reward for those who are willing to work is happiness. Our boys and girls must know that they may succeed in almost any line provided they will labor intelligently, persistently, and honorably. Our children must be made to feel that all they receive from the public fund is given with the assurance that some day it will be returned a hundred fold in manliness and womanliness of the highest type. That individual defectives can be made self-supporting is proved by conditions as they exist today, for the world teems with excellent men and women, graduates and ex-pupils of our schools for the deaf and the blind who are valuable citizens, producers, giving more than they have received.

When you ask whether these institutions can be made self-supporting, I answer, Yes, if you mean by support giving to the nation young men and women who will make the world richer and better for having had the opportunity of attending such schools. If, however, you intend that these institutions shall become workshops where the first thought is financial gain, and that thereby they are to lose their character as schools, I most emphatically answer, No.

The United States stands in the very front rank of the civilized nations of the world today because it provides a free and liberal education for all its children, no matter how poor their circumstances or how defective their capabilities, and at the same time demands that they shall give back citizenship of the most efficient and trustworthy order. Institutions for defectives may be made self-supporting, but why should they any more than our public day schools, our high schools, our colleges, and state universities? All children should be educated, the bright boy and the dull boy, the normal child and the defective child. The state has no right to be partial in its distribution of knowledge, and it cannot afford to be. The state should not educate your boy because he can hear and see, unless it provides similarly for my boy who cannot hear, or see, or speak. It would be an unjust discrimination.

But you may say, "Why must the state furnish these defective children with a home and food and shelter? It does not provide such things for the ordinary child." The reason is plain. The state provides a free education for all its children. For the normal child it places the public school at the very home door; it often consolidates school districts in order to give greater advantages, and when children live at inconvenient distances, frequently transports them to and from school at public expense, because transporting the child to the school costs less than bringing the school to the child. On the same principle, the state finds it more convenient and more economical as well as productive of superior results, to establish and maintain a central school for defective children, paying for their board during the term. The state furnishes a home as a necessity incidental to education, not as an act of charity. Parents submit to the separation from their unfortunate children as a painful sacrifice which they make for the good of the child and the benefit of the state. I do not wish to infer that these children who live in state boarding-schools should do nothing in return for the state's generosity. I would make them feel that the school is their home, and that they are to help take care of it and keep it clean. I would require their assistance in the manifold little duties about the house. Home duties are the vital duties of life. Their performance brings a realization of power to earn, as well as a consciousness of ability to help others. Further, I would insist that they should express themselves politely and gratefully whenever they desire anything given to them, no matter whether it be their own property, something purchased with their money, or whether it be a sheet of paper or a pencil provided by the institution. Too often, I regret to say, we who should set the example forget to say, "If you please," and "I thank you." We cannot be too strict in these matters. In a

public boarding-school where everything seems to be ours for the asking, the thought must be, if we are to train our pupils rightly, that these many blessings are not really ours unless we make ourselves worthy of them.

HOW CAN INDIVIDUAL DEFECTIVES BE MADE SELF-SUPPORTING?

First, by giving them an education which shall train not only the mind and heart, but the hand and spirit as well. This is true of all classes.

For their own sake, and for the sake of the pupils in school we must take a practical and helpful interest in our graduates and ex-pupils, watch and advise them when they leave us, and keep the undergraduates informed as to the success of individual pupils. I have found that our boys and girls are deeply interested in the records made by those who have gone out from the fostering care of the school.

Another helpful method is to put pupils on record before distinguished visitors, by requiring them to stand up and answer such questions as: "What are you preparing to do by and by to repay the state for your education?" "What vocation do you desire to follow?" Inquiries like these lead my deaf and blind boys and girls to think about their future, and to realize that they must do something for themselves.

It is wise to honor the boy or girl who has done well, and to suggest not only to pupils, but to parents and guardians, that young people should be useful at home as well as at school; that they should be employed at profitable work, study, and play, even during vacation. Great was the round of applause one September morning a year ago when, in chapel, I exhibited one of our younger lad's calloused hands, and made the pupils feel that I loved and honored this boy who had toiled and sweat and earned for his widowed mother, while some other youngsters, equally able, had idled the summer away.

By devices of this sort we can teach independence and avoid the danger of overhelping our pupils. I recall an instance, and there are others like it, of a county pupil's appearing at my office door and asking for a pair of new trousers. Only a few weeks before I had purchased for this same boy quite a stock of good clothes and was, therefore, astonished to learn that it was already necessary partly to furnish him. It struck me that a golden opportunity presented itself, and I said, "Walter, you have worn out your clothes too quickly. I am afraid you have not been careful with them. I cannot afford to buy you any more. But Walter, wouldn't you like to earn some money and buy your own trousers?" It was a happy thought. He did want to earn. He did want to be independent. And that boy worked ten Saturday afternoons to earn sufficient to pay for the clothes. They were his trousers and he knew it, he also knew their value, and six months after he was wearing them for best. He was proud of them, but more proud because he had earned them.

I have recently read in our chapel service two books dealing with the lives of young people, who by hard, earnest toil climbed, step by step, and round by round, self-effort's successful ladder. One of our heroes was an

orphan boy who refused to be a pauper, and ran away from the county poor-farm in his desire to be free and independent. The influence of this story has already been shown. One of my boys who was for years been receiving county aid came to me for assistance to get work. I directed him to certain places. Tho he searched for days he finally secured employment, and is now earning his own way. His face portrays more real joy of life than it ever did, from the simple fact that he respects himself for his own freedom. He is succeeding because of the new spirit that has taken hold of him.

To secure the spirit of independence in the individual we should keep in mind the thought of that eminent educator, Dr. Edward E. Allen, principal of the Pennsylvania School for the Blind: "The training of the spirit is at least as important as the training of the mind." If a boy's spirit is right, his will to do is right, and "Where there's a will there's a way."

EMPLOYMENT FOR ADULT DEAF, BLIND, AND FEEBLE-MINDED OUTSIDE OUR INSTITUTIONS

This is not a serious problem with the deaf, for they are found everywhere in the thickest of the fray, face to face and side by side, with their more fortunate fellows, busy, successful, and happy. With the blind there are greater obstacles and their handicap is bigger. Many blind persons succeed as musicians and piano-tuners, while some do well as writers and as teachers. We hear of successful blind lawyers, elocutionists, and even doctors, but these are the exceptions. The problem is, what shall we do with the majority?

The experiments now being carried forward in Massachusetts, New York, and other eastern states looking toward the alleviation of the condition of the adult blind should be watched with interest. The most successful of these plans will be that which gives the blind increased strength and independence to bear their burden.

From various sources we learn that the feeble-minded, when well and properly trained, are happiest and most successful at work upon the farm and in the garden, or employed in the domestic work about the home. Many of them, if given some friendly oversight, become good teamsters, plowmen, farm-hands, house servants, and laborers. There are many more dependent than independent among them, who, as a consequence, must remain forever under the care of the institutions established for their welfare.

I am strongly of the opinion that it is unwise to employ many of our own graduates in the home institution, and that those who are employed ought not usually to be given such positions until they have worked for others and made good. Most of us are inclined to strive much harder for success away from home than under our own roof. And the presence of graduates of the school upon the pay-roll is likely to suggest to the pupils that the school owes them a living. I believe it is the duty of every institution to assist its graduates to get situations, but I think it is equally as important to disseminate the news of individual successes among our former pupils. Nothing succeeds like success, and the knowledge that other deaf, blind, and feeble-minded persons are getting

on in the world is one of the most powerful incentives to place in the hands of our adults and pupils as well. The very fact that one prospector found gold in the desert hills of Nevada, led hundreds and thousands thither to dig out fortunes for themselves, and make of the barren waste a commonwealth, strong and enduring. The information that one of our young people is fighting life's battles manfully and splendidly leads many another to follow in his footsteps.

In conclusion then, there should be no doubt as to the propriety of educating a child at public expense and fitting him for a life of usefulness. When we return to the state young men and women equipped for life's struggle, after years of pupilage in a free public boarding-school, we fulfil our duty to the state. It is economy to maintain these schools, even tho they cannot successfully support themselves. The preparation for life after school must be made by the pupil himself. He must work out his own salvation; but the task of directing that preparation is the teacher's, and it is a gigantic task. She must, by her wisdom and love, plan for her pupils such experience in school as will give them greater power to win their way when they leave her. It is up to her and to us all as teachers, to point out the way, to lead, guide, and direct, to instil into the hearts and minds of our pupils that love for work, that desire for independence, and that spirit for real life, which shall cause hundreds and thousands of defective youths to dig out of life a wealth of happiness by supporting themselves.

THE TRAINING OF THE INCORRIGIBLE

W. A. GATES, SECRETARY, STATE BOARD OF CHARITIES AND CORRECTIONS, BERKELEY, CAL.

I did not select the title for this paper, and if left to my own choice it would have been very different. The Incorrigible! During an experience of several years I have tried to find him on the streets, in reformatories, and in books. For some time past I have carefully studied boys who have been found guilty of crimes, and since this subject was assigned me over a year ago I have made earnest effort to find an incorrigible. I have found delinquent boys and girls, but I have also found the woods full of delinquent men and women, and some of them holding high positions. How few persons have not at some time in their lives broken the law and become delinquent? I will give a few specimen cases. A boy was sent by a grammar-school teacher and principal to the parental school as an incorrigible. He faced the principal of the parental school in fear and sat down cautiously on the edge of a chair ready to spring out of reach the moment the principal struck. But the latter did not strike. A short conversation restored confidence and the boy was assigned to his room. Some days having expired without any appearance of the incorrigibility, the principal investigated the school from which he had been sent and found as his former teacher a nervous wreck, irritable and petulant, and who was the direct cause, no doubt, of this boy's so-called incorrigibility. Another boy eighteen years old was tried and convicted of murder and had a long

record of offences. Here, said I, is my incorrigible, but I found that about five years previous this boy had a good mother in charge of him and at the age of twelve his prospects were as good as that of any boy. The mother died, and the father neglected him. He dropped out of school; he ran the streets; he found bad companions; he acquired bad habits; he stole to feed these bad habits; and at last committed murder to get money to continue to feed these bad habits. But here was no case of incorrigibility. It was a case of parental neglect and that boy is in prison today to spend a life-sentence and who is to blame? That father must surely answer for it before the final Judge. Another, a girl, was brought up in ease. She went to school but she did not work. Her mother did the work and the girl was to be raised a lady. Her will was law as the mother believed that if you crossed a child you would destroy its will-power. (I have found many others who believe in that fallacy.) At fourteen she chose to do things which her mother did not think proper. The mother strenuously objected for the first time. The girl threatened suicide and the mother yielded. A few years later when the resources were gone and this girl was forced to earn a living for herself, what did she do? She had cultivated her beauty and vanity more than her mind. She had acquired tastes and habits far beyond her power honorably to supply. And so she became a prostitute. And who is to blame in this case? That mother.

In these cases we can see clearly the impelling motive to crime, namely, to satisfy vanity or acquired appetites or desires. In boys this impelling motive leads usually to larceny and the greater crimes. In girls it leads usually to prostitution and perhaps larger crimes. I have frequently been asked why there are more male criminals than female. My answer is, There are not. We send the male criminals to prison and let the female criminals run the streets.

But are there not incorrigibles in the adult reformatories? Well, No. There are some tough propositions. A long run of contempt for all authority and indulgence in bad habits makes some bad boys. The great majority of those who are sent to these institutions are found to be illiterate, of bad habits, and to have no respect for the laws of God or man. The first essential in the training of these is to command obedience. The punishments which the parent and teacher should have administered in earlier day may now have to be given in double doses. The trainers of this class must be experts in psychology and experienced in reading character. Each case must be studied and diagnosed and the remedies applied. Different cases call for different remedies. The result aimed at is always the same, namely, to bring the subject to a conclusion in his own mind that the rules of this institution are made to observe.

Bad habits are of course stopped by the confinement and a course of new and good habits begins. He may not like this better course to begin with, but long enough continued it will result in better habits formed, and will continue until interrupted by some other course of life.

And the reformatories do reform. Our best institutions turn back into

honest, self-supporting citizens more than 75 per cent. of those who are sent there. The remainder are mental defectives. In the last analysis then the incorrigible, if such a person there is, is a mental defective.

If the reformatories can cure child-delinquency, the homes and schools can surely prevent it, and this is the important question for this assemblage.

The generally accepted classification of child-life is, under seven years of age, infancy; from seven to fourteen years, childhood; and from fourteen to twenty-one years, youth. During the first seven years we do not hold the infant at all accountable. During this period he must be directed. During the period from seven to fourteen years, Professor Hall in his valuable work on *Adolescence* says "that reason, true morality, religion, sympathy, love, and aesthetic enjoyment are but very slightly developed." The direction required during the period of infancy must be continued during the period of childhood. The child must be made to obey and taught respect for authority. It is during this period that many children are spoiled by improper, or rather lack of, government. At the age of from twelve to fourteen years, children are likely to become very restless, dislike school, want to be free and independent. At this period, says Dr. Hall, youth "attempts to carry out every impulse, loves nothing more than abandon, and hates nothing so much as restraint." This is also a period when the child is easily influenced by outside forces. It is probably the most critical period of child-life. There is the tendency to break away from school and from home and go out and see the world and start in life. It is a lamentable fact that nearly one-half of the children in our public schools drop out at this age and from these who thus drop out of school are the delinquents and vagrants recruited. These form the "hoodlums" of our cities and later the criminal class. The problem of the school board and schoolmaster is to keep these children in school. Every state should have compulsory education laws, compelling attendance in school until at least sixteen years of age, and these laws should be rigidly enforced. To support a poor mother should not be an excuse. Society would be the gainer to support the poor mother and keep the boy in school. There should be no expulsions from school. Truant schools and parental schools may be necessary and, when so, should be provided. However, a well-trained principal who makes serious effort with every child will have but little use for the parental school, and wages should be high enough to command such a principal in every grammar school. The school board should provide a truant officer to look up and get every well child into school, and teachers can also aid in this work.

In this age, mechanical training is recognized as a necessary part of the public-school work. This training should commence at or before this period of unrest. It appeals to the boy. He sees in it a preparation for life-work. He can select his trade and prepare for it. This will be a strong incentive to keep him in school. The school cannot enter the home and cure delinquency there, but it will save many a child in spite of a delinquent home. With the

home, the court and probation officer must deal. And in the end if any should sift thru all these agencies the reformatory must receive and treat them.

But the juvenile reformatory will continue to be. The schoolwork must be similar to that in the public school. The curriculum should be the same, for the child, theoretically at least, leaves the public school on his discharge and, if still of school age, enters again the public school. A better grade of teacher is required than in the public schools. Every child is a problem to someone. Many of them are simple but some are quite complex. Teachers are like their pupils. Some can solve the simpler ones all right but stumble on the more difficult. The reform school then is a collection of problems that the average teacher or parent has failed to solve. But if every teacher would put the same earnest study upon this human problem that they ask their pupils to put, for instance, on their arithmetical problems, there would be fewer failures and fewer children in the reform schools.

These children that reach the reform school are lacking usually in some of the essentials of normal development. Some have defective eyesight; others, defective hearing; and some, other physical defects. Mr. Charles D. Hilles says that one-fourth of those committed to certain New York City institutions have contagious scalp or eye disease. There must then be more attention given to the physical training of the child. This must be not only hospital care to cure present disease, but a course of training that will build up a healthy body.

A large majority of these children come from degenerate or delinquent homes. If it were for punishment that the child were committed, then a mistake were made for the parents are the ones deserving the punishment. But he is committed not for his punishment but for his salvation. Public opinion does an injustice to the child of the reform school by trying to hold him responsible and attaching a stigma to his name. A child, at least under fourteen years of age, should not be held morally responsible. The reform school must go farther than the public school. After four o'clock the public school turns the child back to the home until nine o'clock the next morning. The reform school must also stand *in loco parentis* and keep the child all the time. It must be to him a home and the right kind of a home. This cannot be done in a wholesale way in a few large dormitories. No bad child can be made good in a large dormitory. The children should be separated into small cottages, each cottage in charge of a man and his wife, and made as homelike as possible. In this home, moral training, character-building, will be done.

Military training is now recognized as a part of a reform-school course. With all due deference to the peace advocates, military drill does much to inspire obedience, respect for authority, and also respect for one's bearing and appearance. Military training is not put into reform schools to make soldiers but to make better men and it will stay because it inspires to better manhood, morally, intellectually, and physically.

Manual training should be in all public schools, but that in a reform

school especially should be such as to give a boy a trade and prepare him for honest self-support. For the girls this is very important, and it is where many reform schools fail. The girls are turned out into the world without means of support. If known that they came from the reform school they are received with suspicion and a hundred human dogs are camping on each one's trail. Without a good home, without honorable means of support, discharged in most cases at eighteen years of age, and subject to temptations on every side, is it surprising that many fail? We will not make a success of girls' reformatories until we give them better manual training, have the power at least to detain them until twenty-one years of age, and society does its part in receiving them back and protecting them. Is there any reason why a girl should be considered at her majority at eighteen and a boy must wait until twenty-one years of age? They need the restraining hand until twenty-one years old as much as boys. Now our courts must drop the delinquent girl when eighteen years old, in her egotism and her weakness.

When we have all of us done our duty, incorrigibility, so called, has been resolved into its elements and corrected and there will be few left to follow a criminal career. Let us, into whose care and custody the children of our country are placed, remember the words of John Hay, in that poem which will uplift and inspire as long as the English language is spoken or understood.

> And I hold that the saving of one of these
> And the fetching him to his own
> Is a durned sight better business
> Than loafing around the throne.

DEPARTMENT OF INDIAN EDUCATION

SECRETARY'S MINUTES

FIRST SESSION.—Monday Morning, July 8, 1907

The Department of Indian Education met in the State Normal School at 9:30 A. M., with the president, Harwood Hall, superintendent of Sherman Institute, Riverside, Cal., in the chair.

The following program was presented:

Music, furnished by the Sherman Institute Girls' Mandolin Club.

President's address, by Harwood Hall.

"Indian Education," by Colonel George LeRoy Brown, of the United States Army.

"Essential Features in the Education of the Child Race," by George P. Phenix, superintendent of the academic and normal departments, Hampton Normal and Agricultural Institute, Hampton, Va.

"Native Indian Art," by Miss Angel De Cora, instructor in native Indian art, Carlisle Indian School, Carlisle, Pa.

Demonstration lessons, with classes of Indian pupils, presented by Miss Bertha D. Proctor and Miss Maggie Naff, teachers, Sherman Institute, Riverside, Cal.

The general session then resolved itself into a round-table conference, presided over by the Hon. Francis E. Leupp, Commissioner of Indian Affairs, Washington, D. C.

A reception in honor of the Commissioner of Indian Affairs was held in the parlors of the Westminster Hotel, at 9:30 P. M.

SECOND SESSION.—Tuesday Morning, July 9

The second session of the department was held Tuesday morning at 9:30, President Hall presiding.

The following program was presented:

Music, furnished by the Sherman Institute Girls' Mandolin Club.

Address by Hon. Elmer Ellsworth Brown, Commissioner of Education of the United States, Washington, D. C.

Demonstration lessons, with classes of Indian pupils, presented by Clarence L. Gates and Miss Carrie M. Darnell, teachers, Sherman Institute, Riverside, Cal.

The following resolutions were adopted:

Resolved, That as this is the first time a Commissioner of Indian Affairs has ever attended our Annual Institute, we hereby express our appreciation of the presence of Hon. Francis E. Leupp, thruout this meeting; that we are grateful for his advice and encouragement; that we will use our best efforts in fostering the native art of the Indian; and that we will faithfully and loyally strive to carry out the policies he has outlined.

Resolved, That we greatly appreciate the untiring and efficient efforts of Superintendent Reel in introducing into our schools practical methods of instruction, and her persistent labors which have made this institute the most successful yet held;

That we tender our thanks to Mr. Harwood Hall, president of the department, for the able and impartial manner in which he has presided over our meetings, and for his courtesy in entertaining the Indian workers at Sherman Institute; that we are grateful to the teachers and students of Sherman Institute who have so ably demonstrated to the public the practical training given at that noted school; and that we appreciate the opportunity and benefit of meeting with the National Educational Association;

That we acknowledge the courtesies extended and the hospitality of the people of Los Angeles, and that we thank the local press for the extensive reports of our proceedings.

THIRD SESSION.—Friday, July 12

A joint session was held with the Department of Manual Training. For program see minutes of the Department of Manual Training.

Estelle Reel, *Secretary.*

PAPERS AND DISCUSSIONS

OPENING REMARKS

HARWOOD HALL, SUPERINTENDENT OF SHERMAN INSTITUTE, RIVERSIDE, CAL.

This institute is convened by authority of the Bureau of Indian Affairs, under the direction and supervision of the National Superintendent of Indian Schools, for the purpose of conferring together in order to facilitate the furtherance of the policies outlined by Commissioner Leupp, in the education of the Indian.

The Indian Department of the National Educational Association is an important one, and therefore it shou'd be the aim of each worker to make this session profitable and interesting to ourselves as well as to visitors. As we are engaged in a truly great and noble work with a view to assisting in uplifting a race, we should be zealous in pushing this work ourselves and in enlisting the sympathies of others. The success of any enterprise depends upon the interest its members have in its welfare and prosperity. So, in order for the Indian workers to have an anxious concern for the success of this work, it is essential that we know what is being done, and there is no better means to accomplish this than that afforded by being present at a convention of this kind. The exchange of ideas, the reports of work at different schools, and the discussions of vital topics by able educators cannot help but be highly beneficial to us all.

With such interest and loyalty as have been shown by Indian school workers in the past and in studying and carrying out the present policy of the Commissioner of Indian Affairs, I can see great gain and benefit for the Indian schools and the Indian race in general. It is my hope that each and everyone present may receive renewed inspiration and help from the various meetings and conferences arranged for this institute, and that all will take an active part and help to make the convention a real success. The management extends the hand of help and friendship to all, and thus we will work as a unit.

Before taking up the routine of this institute it will be our pleasure to listen to several addresses by well known and prominent speakers.

INDIAN EDUCATION

COL. GEORGE LEROY BROWN, OF THE UNITED STATES ARMY, SANTA MONICA, CAL.

I am glad to see gathered together today so many workers in the Indian Service, and I congratulate you upon the success of your best efforts, upon the flourishing condition of your work today, and that the brightest prospect is for the future. You deserve, one and all, great credit for extending a hand in kindly help to the children of a stricken race, a race that has done much to bring about the blessings of a free government in this land of freedom, a race

that fought stubbornly for home, for country, and for personal liberty, and showed in their fight their indomitable endurance.

I wish to bear testimony today that it is my belief and firm conviction that the present Commissioner of Indian Affairs is working along humane and practical lines which are best qualified to ameliorate the present condition of the Indian race, and to insure to future usefulness. His long years of interest and of useful work along practical lines deserve the highest praise. He has gained the confidence and the respect and affectionate regard of all, whether of red, or of mingled blood, who are interested in the welfare of the Indian.

I am glad today to be permitted to assure you all of good fellowship. Good fellowship extends to all those who do all they can for others, and the best of good fellowship is a good woman. She it was who kindled the fire on the hearthstone of the first home where her little ones gathered about her and received her instructions. Her wandering mate returned at night laden with the spoils of the chase, stretched himself in the genial glow of the fire, and was glad because his heart was good and that this brave woman lived. She prepared all his meals, made the first garments, and the first utensils of the home, and perfected those homely virtues upon which as sound as a rock has been builded the fine fabric of our civilization. Well may woman in this day of fair chance lift high her head and say she is proud to be a woman. There are few Indian women within the reach of my voice today, but I say to you, and my heart goes out to all, lift high your heads and be proud that you are Indian women for in your hand is placed the power to uplift a race. Generations yet to come will depend upon your purity, your devotion, your loving sacrifice, and your endurance in right living; and I say to you Indian boys and Indian men within the reach of my voice today, lift high your heads and stand for the right; just as your ancestors in days of old stood forth, stand forth and fight for an honorable and useful place in the land of your fathers.

ESSENTIAL FEATURES IN THE EDUCATION OF THE CHILD RACE

GEORGE P. PHENIX, SUPERINTENDENT OF THE ACADEMIC AND NORMAL DEPARTMENTS, HAMPTON NORMAL AND AGRICULTURAL INSTITUTE, HAMPTON, VA.

The family is the unit of society; and it must be the unit in all attempts at social betterment. Since the most important thing for the family is that all its member be healthy, we must unquestionably regard training in healthy living as the first essential feature in the education of a race. The physician, the nurse, the field matron, and the missionary, or whoever it is that ministers to bodily ills, exercises a function whose possibilities it is hard to overestimate.

A comparison of the old and new ways of life—the well ventilated tepees with the superheated air-proof houses that succeed them, the inability of the Indian to move his new house away from the accumulation of filth when conditions had become all but intolerable, the overcrowding of the new houses

which the size of the tepees rendered impossible in the old days—makes clear the fact that under the old conditions the quantity of infecting material was kept at a minimum and at the same time the Indian's power of resistance was kept at its maximum so that opportunities for infection were few. Under the new mode of life conditions were reversed. Everything favored the increase of infecting material while the Indian's power of resistance was reduced and, thru overcrowding, the opportunities for infection increased enormously. In 1896 the death rate among the Sioux of Pine Ridge had risen to 52.88 per 1,000—a number considerably in excess of the birth rate—and of this high death rate nearly one-half was due to tuberculosis. The unsanitary conditions under which the Indians often live are only too familiar to many of you. They have been recalled here in order to emphasize what follows.

Tuberculosis is one of the most serious diseases with which civilized and semi-civilized people are afflicted, but it is by no means the only one. There is an enormous waste of life due to ignorance in caring for the minor diseases which are often preventable. Diseases of children head the list. The number of children one may see in a single day afflicted with maladies of various sorts even among the more settled tribes of the Southwest appalls one. Many ills receive no attention except what some non-medical government official may in his kindness administer on his occasional visits. While tuberculosis existed among the Indians before they came into contact with the white people, yet at that time the disease was rare among them and remained so until they changed their nomadic to a settled life in houses.

To alleviate or to prevent bodily ills most men will make some effort, and to gratify the desires of their children parents will do much. For these two reasons the physician, the day-school teacher, and the field matron can probably accomplish more immediate good than any other agencies. Their work gradually converts needs into wants and so raises the whole standard of life. Much must of necessity be left to the slow processes of evolution; and nature is never in a hurry.

Next in importance to health in the home we must place efficiency in home management; hence I would have as the second essential such training of the children as shall tend to secure this end. This is the opportunity of the school. I have in mind, however, not the prevailing type of public school in the East. Valuable as the school of the usual type may be in its proper place, it after all deals with matters remote from what are strictly the essentials of education. Neither have I in mind the boarding school, whether on or off the reservation, for we must bear in mind that the most important part of education is a thing of the home, and any school which breaks up the family by taking the children —especially young children—out of it can never do this needful work. The relation of parent and child is one of the most vital and stimulating factors in the elevation of a race, and anything which tends to weaken this relation is to be deplored.

Fortunately the ideal type of school has already been evolved. I refer

of course to the Indian day school. Indeed, I can conceive of no more effective instrument of civilization than the day school at its best.

There are enrolled in government boarding-schools over twenty thousand pupils, many of whom are very young. In the day schools there are less than five thousand pupils. This proportion is not as it should be.

Day schools naturally differ considerably in equipment and in efficiency, but if we visit one of the better sort we shall find an efficient man with an efficient wife, in charge. The husband and wife occupy a little cottage which they have transformed into a model home. A schoolhouse is near by and the necessary buildings for housing such horses, cows, and chickens as the little farm may support. There is enough land fenced in for garden and pasture. The whole place is neat and well kept.

This type of school is unique. Human ingenuity could hardly devise a simpler or more effective means for uplifting a backward people. The home is perhaps the most valuable half of this interesting institution, for here the girls prepare the daily lunch; here they get their first lessons in sewing and learn to make their own dresses; here they wash, dry, and iron their clothes, and learn important lessons in the matter of personal cleanliness and hygiene. The little farm, which is but the outside half of the home, offers to the boys opportunities analogous to those which the girls enjoy within. The lessons in gardening and caring for animals are of the most valuable kind and relate the school to the home in a natural and wholesome way.

So far as the work of the schoolroom itself is concerned, if the children learn to speak and write the English language, acquire thru pictures and books some knowledge of other places and other peoples whose customs differ from their own, and get a little knowledge of numbers it is quite enough. The rest may safely be left for other schools to do for such pupils as go to them.

NATIVE INDIAN ART

MISS ANGEL DE CORA, INSTRUCTOR IN NATIVE INDIAN ART, CARLISLE INDIAN SCHOOL, CARLISLE, PA.

The time has not been long enough since the subject was put into practice to show some of the possibilities of adapting Indian art to modern usages.

Indians, like any other race in its primitive state, are gifted in original ideas of ornamentation. The pictorial talent is common to all young Indians.

The method of educating the Indian in the past was to attempt to transform him into a brown Caucasian within the space of five years, or a little more. The educators made every effort to convince the Indian that any custom or habit that was not familiar to the white man showed savagery and degradation. A general attempt was made to bring him "up to date." The Indian, who is so bound up in tribal laws and customs, knew not where to make the distinction, nor what of his natural instincts to discard, and the consequence was that he either became superficial and arrogant and denied his race, or he grew dispirited and silent.

In my year's work with the Indians at Carlisle, I am convinced that the young Indians of the present day are still gifted in the pictorial art.

Heretofore, the Indian pupil has been put thru the same public-school course as the white child, with no regard for his hereditary difference of mind and habit of life; yet, tho the only art instruction is the white man's art, the Indian, even here, does as well and often better than the white child, for his accurate eye and skillful hand serve him well in anything that requires delicacy of handiwork.

In exhibitions of Indian-school work, generally, the only traces of Indian one sees are some of the signatures denoting clannish names. In looking over my pupils' native design-work, I cannot help calling to mind the Indian woman, untaught and unhampered by the white man's ideas of art, making beautiful and intricate designs on her pottery, baskets, and beaded articles, which show the inborn talent. She sits in the open, drawing her inspiration from the broad aspects of nature. Her zigzag line indicates the line of the hills in the distance, and the blue and white background so usual in the Indian color scheme denotes the sky. Her bold touches of green and red and yellow she has learned from nature's own use of those colors in the green grass and flowers, and the soft tones that were the general tone of ground color in the days of skin garments, are to her as the parched grass and the desert. She makes her strong color contrasts under the glare of the sun, whose brilliancy makes even her bright tones seem softened into tints. This scheme of color has been called barbaric and crude, but then one must remember that in the days when the Indian woman made all her own color, mostly of vegetable dyes, she could not produce any of the strong, glaring colors they now get in aniline dyes.

The white man has tried to teach the young Indian that in order to be a so-called civilized person, he must discard all such barbarisms.

It must be remembered that most of the Indians of the Carlisle school have been under civilizing influences from early youth and have, in many instances, entirely lost the tradition of their people. But even a few months have proved to me that none of their Indian instincts have perished but have only lain dormant. Once awakened they immediately became active and produced within a year some of the designs that you have seen.

I have taken care to leave my pupils' creative faculty absolutely independent and to let each student draw from his own mind, true to his own thought, and, as much as possible, true to his tribal method of symbolic design.

The work now produced at Carlisle, in comparison with that of general schoolwork, would impress one with the great difference between the white and the Indian designer. No two Indian drawings are alike, and every one is original work. Each artist has his own style. What is more, the best designs were made by my artist pupils away from my supervision. They came to me for material to take to their rooms and some of the designs for rugs that you have seen were made in the students' play hour, away from the influence of others—alone with their inspiration, as an artist should work. It may interest

you to know that my pupils never use practice paper. With steady and unhesitating hand and mind, they put down permanently the lines and color combinations that you see in their designs.

We can perpetuate the use of Indian designs by applying them on modern articles of use and ornament that the Indian is taught to make. I ask my pupils to make a design for a frieze for wall decoration; also borders for printing, designs for embroidery of all kinds, for wood-carving and pyrography, and designs for rugs.

I studied the Persian art of weaving from some Persians, because I saw from the start that the style of conventional designing produced by Indian-school pupils suggested more for this kind of weaving. We shall use the Navajo method as well, but the oriental method allows more freedom to carry out the more intricate designs. The East Indian and the American Indian designs are somewhat similar in line and color, especially those of the Kasak make.

I discourage any floral designs such as are seen in Ojibway beadwork. Indian art seldom made any use of the details of plant forms, but typified nature in its broader aspects, using also animal forms and symbols of human life.

With just a little further work along these lines I feel that we shall be ready to adapt our Indian talents to the daily needs and uses of modern life. We want to find a place for our art even as the Japanese have found a place for theirs thruout the civilized world. The young Indian is now mastering all the industrial trades, and according to the wishes of the Honorable Indian Commissioner, there is no reason why the Indian workman should not leave his artistic mark on what he produces.

DEMONSTRATION LESSONS[1]

Teaching Agriculture in the Classroom

PRESENTED WITH A CLASS OF INDIAN PUPILS BY MISS BERTHA D. PROCTOR, TEACHER, SHERMAN INSTITUTE, RIVERSIDE, CAL.

We should correlate arithmetic, English, and composition with agricultural subjects in the classroom and endeavor to give the pupils practical instruction that will enable them better to understand the various farming operations. Alfalfa is grown in many sections of the United States and perhaps at most of the Indian schools, so lessons on this subject can be given with profit by many of the teachers present. The subject, however, is too broad to bring out all the points in the brief time allotted me for presenting this lesson, but you can readily see the va ue of agricultural instruction in the classroom.

If you do not grow alfalfa in your section, perhaps your principal crop is wheat, or corn, or cotton. Do not burden the minds of your pupils with information concerning crops they never saw or which cannot be successfully grown at their homes. For example do not waste time teaching orange growing in

[1] At the close of each session demonstration lessons were given by teachers in the service, showing how the classroom instruction in the different grades may be correlated with the work of the various industrial departments. Classes of Indian pupils were used in the presentation of these lessons.

Montana. If you are located in a grazing-section, emphasize stock-raising in the classroom. Instruct your pupils in the industry in which they will most probably engage upon leaving school.[2]

Shobe may pass to the board, draw a plow, putting the price under it. You may also answer, in writing, the questions on the board (indicating where).

Q. Antonio, how much does it cost to bale hay?

A. About $2 per ton.

Q. What is the average price of alfalfa hay?

A. $12 to $14 a ton.

Q. What is the average yield per acre?

A. The average yield is about one ton.

Q. Agnes, what does agriculture give to the world?

A. Food, medicines, materials for clothing, etc.

Q. What are the agricultural crops grown at the ranch connected with Sherman Institute—our school?

A. Alfalfa, oats, and barley hay.

Q. Describe briefly the alfalfa crop.

A. It grows from one to three feet high, according to location and soil; it has purple flowers which are long, loose clusters (like this); the seeds are yellowish brown in color (like these); the roots grow very deep in the ground (like this). (Pupil displayed specimen in each case.)

Q. How would you select alfalfa seed?

A. I would select fresh seed of a greenish hue, plump and bright in color.

Q. What is the color of old seed?

A. Reddish brown or black.

Q. What kind of soil is best for alfalfa?

A. A deep sandy loam.

Q. How would you prepare your land for planting?

A. The preparation of the soil should begin in the fall. The land should be freed from weeds, and then use subsoil plow from fifteen to twenty inches so that the roots may go down deep and can stand a great deal of dry weather. A liberal coating of mulching should be plowed under at the time of subsoiling. If the land it allowed to stand idle for some time after plowing, it should be thoroly disked. I would run a harrow over the ground a day or two before seeding and then make the ground smooth and level so that it can be easily irrigated and the mower can run over it with ease and safety.

Q. Why do you work the land so thoroly?

A. So that the soil will be like a sponge, drinking in all the rain that falls.

Agnes may pass to the board and write a check in payment for a rake, and then solve the problem on the board.

Q. Antonio, what is the best time of year to sow alfalfa seed?

A. In January or February, according to the weather.

Q. How would you sow the seed if it is a dry year?

A. The land ought to be irrigated before sowing.

Q. How would you do it?

A. I would check off the ground and fill the checks with water; when dry enough I would plow and harrow and smooth it.

Q. How long before it should be watered after seeding?

A. About two months.

Q. Shobe, how much seed should be sown to the acre?

[2] In this lesson current prices, local methods of cultivation, etc., have been used. These, of course, vary in different sections, and teachers should be careful in order that pupils may be given accurate information on whatever subject is taught.

A. Twenty to twenty-five pounds.

Q. What is the cost of alfalfa seed a pound?

A. Local price is fourteen cents.

Q. How is alfalfa sown?

A. With an Eschchon seeder or drill.

Q. What is meant by sowing broadcast?

A. Sowing the seed with the swing of the hand.

Q. How deep should the seed be sown?

A. One-half inch. It is often drilled two ways, which gives it a better stand. When intended for a seed crop it should be sown thin. Thick sowing improves the hay crop.

Q. How long does it take to produce a crop?

A. Six months, generally, if sown early.

Q. Antonio, how often can alfalfa be cut in one season?

A. About six times.

Q. How many tons will an acre yield in a season?

A. Six tons.

Q. When do you irrigate alfalfa?

A. As soon as the hay is taken off the field?

Q. How long does it take for it to grow large enough again?

A. Thirty days.

Q. When is alfalfa hay ripe?

A. When it is in flower.

Q. How do you care for the hay?

A. Cut it with a mower and let it dry, then rake into windrows and shock for convenience in loading; then it is loaded and stored in the barn or stacked.

Antonio may now pass to the board and answer the following questions.

Q. How much water does it take to irrigate an acre?

A. Ten inches.

Q. What is meant by an inch of water?

A. It is water running thru an inch hole for twenty-four hours under a four-inch pressure. In California a miner's inch is nine gallons per minute.

Q. What is the price of water at Sherman?

A. From ten to twenty-five cents, according to season.

Q. How much will its cost to irrigate one acre?

A. To irrigate one acre it takes ten inches of water running twenty-four hours. If one inch costs fifteen cents, ten inches will cost ten times fifteen or $1.50.

Q. We will now look at Shobe's blackboard work which speaks for itself. Shobe may explain how he finds the profit on one acre of alfalfa.

Shobe:

1 acre requires 10 in. water at 15 cts. per in.	$1.50
20 lbs. seed at 14 cts. per lb.	2 80
Labor	3.00
	$7.30
Selling price of a ton of alfalfa	$14.00
Cost of a ton of alfalfa	7.30
Profit per acre	$ 6.70

Agnes may now tell us what it costs to raise an alfalfa crop of twenty acres.

Agnes:

(1)	$25.00	cost to level 1 acre
	20	acres
	$500.00	cost to level 20 acres

(2)	25	lbs. seed to 1 acre
	14	cents per lb.
	$3.50	to seed 1 acre
	20	
	$70.00	to seed 20 acres
(3)	$1.50	to irrigate 1 acre 1 time
	6	
	$9.00	to irrigate 1 acre 6 times
	20	
	$180.00	to irrigate 20 acres 6 times
(4)	$1.00	to cut and shock 1 acre
	20	acres
	$20.00	to cut and shock 20 acres
	6	crops
	$120.00	to cut and shock 6 crops on 20 acres
(5)	$2.00	to bale 1 crop 1 acre
	6	crops
	$12.00	to bale 6 crops 1 acre
	20	
	$240.00	to bale 6 crops on 20 acres
(6)	$500.00	to level land
	70.00	seed
	180.00	irrigating
	120.00	to cut and shock
	240.00	baling
	$1,110.00	total cost of raising 20 acres
(7)	20	acres, 1 crop, 1 ton to acre
	6	crops
	120	tons
	$14	selling price per ton
	480.00	
	1,200.00	
	$1,680.00	total amount of hay sold
	1,110.00	total cost of raising
	$570.00	net profit on 20 acres

Most of the children have land or will be allotted land when they are old enough and we must prepare them in school to make good use of it.

ORANGE CULTURE

PRESENTED WITH A CLASS OF INDIAN PUPILS BY MISS MAGGIE NAFF, TEACHER, SHERMAN INSTITUTE, RIVERSIDE, CAL.

In order to prepare our Indian pupils for the battle of life, teachers must study their individual needs and the special occupations in which they will engage, upon leaving school. If they have land the cash crops of the locality

should be taught. If cattle-raising is the industry this should be taught in connection with language, arithmetic, and other lessons.

Orange-culture has been chosen as the subject of my lesson as it is a lucrative industry here in Southern California. At Sherman Institute (our school) this is one of the subjects we teach in the classroom, as this will be of practical benefit to many of our pupils. Some have worked in packing-houses and orange groves. In one of the older settlements of this section, some of the Indians own orange trees; more of them may follow this occupation in the future. We are fortunate at Sherman in having so able an instructor as Mr. Cruickshank, our director in farming and gardening, whose information is of great assistance to teachers and pupils. We frequently take pupils to the garden with notebooks and pencils and as he gives instruction the class will take notes; these notes are used for language and composition work in class later.

Fellow teachers, when you return to your schools you will not teach orange culture; perhaps you may teach the raising of wheat, or corn, or sheep. We should select the industries which our pupils will follow, individual talents and preferences of course being considered; but, whatever our subject, we are bringing out originality and preparing them for useful work, to guard against being cheated in store and other business transactions.

Lesson

Q. How does Riverside Valley, where our Sherman Institute is located, rank among other orange producing sections?

A. Riverside Valley ranks first in the world, and it is the only place where navel oranges are produced.

Q. How are oranges propagated?

A. They are grown by seeds and by budding. (Pupil shows seed and also a few buds.)

Q. How would you select your seeds?

A. From a robust growing orange tree with good-sized fruit.

Q. How is the seed sown?

A. The seed is sown as soon as taken from the fruit, in beds of prepared soil, and covered with half an inch of fine sand and shaded with a lath house.

Q. How is the fertility of the seed maintained when taken from the fruit?

A. They are put in tins with juice from the orange and sealed up.

Q. How long should seedling trees remain in the nursery?

A. Until they are about two years old. (Pupil shows a small tree.)

Q. What kind of oranges are of the best commercial value?

A. First, the Washington navel; second, the Valencia late. (Pupil shows the different kinds of oranges named and explained the characteristics of each and how they may be recognized.)

Q. Why is the navel orange budded?

A. Because it has no seeds. Budding is the only way to keep the variety true.

Q. How should the buds be selected to get the best variety?

A. They should be selected from a healthy tree of good habit and smooth-skinned fruit.

Q. How is the bud held in place until it unites with the stock?

A. It is held in place by being wrapped with budding twine or with waxed cloth torn in strips three-fourths of an inch wide. (Pupil illustrates this by doing the work hastily.)

Q. How old are the budded trees when ready to set out in the orchard?

A. They are two years old, as it takes one year to grow the stem and one year to grow the top.

Q. What kind of a situation and soil would you select for an orange grove?

A. The best place is a foot-hill, with a south or southwest exposure; sandy loam, with decomposed granite soil.

Q. What is the price of orange land in Riverside Valley?

A. The price of land is from $400 to $600 per acre.

Q. How would you prepare the ground for the orchard?

A. First, plow the high places and grade them into the hollows; then plow all the ground and if necessary subsoil it; then harrow and level with a land leveler.

Q. What is meant by a subsoiler?

A. It is a plow that plows twenty inches to two feet in the ground.

Q. What is the cost of grading and preparing the land for a grove?

A. It cannot be determined rightly, but ranges from $2 to $30 an acre.

Q. What is the cost of young trees?

A. Trees cost about thirty-five cents each when four years old, when you grow them yourself.

Q. Would it pay to grow trees in a nursery for your own orchard?

A. No, time is money in orange-growing; buy your trees from a nursery and let your orchard be growing; then you can raise young trees to sell and thus pay for those you have bought.

Q. What do trees cost from a nursery?

A. The value is from twenty-five cents to $1.25, according to demand and size of tree.

Q. How are citrus trees generally handled when planting?

A. They are balled.

Q. What do you mean by balled trees?

A. The roots are cut with a sharp spade about six inches from the stem, all around the tree, and the soil taken up with it, wrapped in a sack and tied with balling-twine. (One pupil balled a tree to illustrate that he knew how to do what he was talking about.)

Q. How many trees are needed to plant an acre?

A. Generally one hundred and eight trees are needed to plant an acre, planted twenty feet apart each way.

Q. How should they be planted?

A. They are placed in the holes already dug. The balling-twine is cut, and three-fourths of the hole filled with the soil. Finish filling with soil. The trees should be straightened while wet.

Q. How would you lay off an orchard?

A. Get a wire the length of the rows one way, and stretch it tight, get a pole the same length as the stated distance between the trees, or have a piece of tin soldered on the wire, the exact distance between the trees; then drive a peg in exactly where each tree should stand.

Q. How could you dig the holes and have your trees in the right place?

A. Before I start to dig, I get a stick with three notches, and place the middle notch in the peg already in the ground; then drive a peg in each notch at the end of the stick; then remove the middle peg and dig the hole. When ready to plant, put the stick with the notches on the pegs and place the tree in the middle notch and your trees will be in the right place.

Q. Agnes, what will it cost to plant a ten-acre orange grove, if the land is worth $400

an acre, and it requires one hundred and eight trees at 75 cents each to plant an acre, and all the expenses for grading, digging holes, and planting costs $30 to the acre.

Agnes:

(1)	$400.00	cost of 1 acre of land
	10	acres
	$4000.00	cost of 10 acres
(2)	108	number of trees to plant 1 acre
	.75	cost of 1 tree
	540	
	756	
	$81.00	cost of trees to plant 1 acre
	10	acres
	$810.00	cost to plant 10 acres
(3)	$30.00	expense to the acre
	10	acres
	$300.00	total expense for labor
(4)	$4000.00	cost of land
	810.00	cost of trees
	300.00	expense for labor
	$5110.00	total cost of grove

Q. How should the orchard be cared for after planting?

A. In the dry season it is irrigated every thirty days, and cultivated every fifteen days, three ways.

Q. Why should the ground be cultivated?

A. It is cultivated so that the soil will hold moisture, to keep the weeds down, and to allow the air to get to the roots.

Q. How do you prepare to irrigate?

A. Before irrigating four of five furrows should be made between the trees.

Q. Why do you irrigate?

A. We irrigate so that the tree roots can gather the plant food from the soil.

Q. What is the cost of irrigating per acre?

A. It costs $1 per acre for water and 60 cents an acre for labor each irrigation.

Q. When do trees begin to bear fruit?

A. Three years after planting a tree will produce one box of fruit; when eight years old there are about six boxes to a tree, and when fifteen years old ten boxes to a tree. A seedling orange tree at thirty years of age will yield thirty boxes to a tree if well cared for.

Q. When do you begin to prune the orange trees?

A. Begin pruning about five years after planting, removing the dead wood and suckers or water shoots.

Q. In one year what will it cost to care for a ten acre orange grove, cultivation $25 per acre for a year, $1 per acre for each irrigation and 60 cents an acre for labor, irrigating eight times a year? (Teacher had previously written this problem on the blackboard and pupil had solved it, and at this point he was called upon to explain his solution.)

A.	(1)	$25.00	per acre for cultivation
		10	acres
		$250.00	for cultivation during one year

(2)
$1.00 for water each irrigation of one acre
.60 for labor each irrigation of one acre

$1.60 expense for each irrigation of one acre
8 irrigations in one year

$12.80 expense during one year for irrigation one acre
10 acres

$128.00 expense during one year for irrigating ten acres

(3)
$250.00 for cultivation
128.00 for irrigation

$378.00 cost of care for land in one year

Q. How are oranges picked off the trees?

A. They are clipped with one-fourth of an inch of the stem left on the fruit; if not they are culls. (Pupil showed oranges as picked [in crude shape] with stem.)

Q. Why are the stems left on the oranges?

A. To preserve the fruit from rotting.

Q. How much would be the profit for oranges from a ten-acre grove, fifteen years old, ten boxes to each tree, 108 trees to the acre, if it costs 30 cents per box to grow them besides the following expenses for each box; 7 cents to pick and haul to packing house, 43 cents free on board the cars; 17 cents for icing; 90 cents for freight; 20 cents to commission merchant; and 3 cents for cartage, if we sold the box in New York for $3.40? (The problem had been previously written on the blackboard and solved by the pupil, and at this point in the lessons pupil explained it.)

A. (1)
$0.30 cost per box to grow
.07 cost per box to pick and haul
.43 cost per box to pack f. o. b.
.17 cost per box to ice
.90 cost per box for freight
.20 cost per box to commission merchant
.03 cost per box for cartage

$2.10 total expense per box

(2)
$3.40 selling price per box
2.10 expense per box

1.30 profit per box
10 boxes to a tree

$13.00 income from one tree
108 trees to 1 acre
---
104 00
1300

$1404.00 profit per acre
10 acres

$14040.00 profit on 10 acres

Q. When fruit is gathered how is it cared for before shipping?

A. It is placed in boxes and hauled in orange wagons to the packing-house, where it is cleaned, sorted, and packed, then placed in cars ready for shipment.

Q. Where is the fruit shipped in order to get the highest prices?

A. That depends on the market, and prices vary according to demand. The most of the fruit from California is shipped to Chicago, New York, and Boston.

Q. What are the prices per box in eastern markets.

A. That cannot be determined definitely. Prices for navels range from $1.75 to $6 per box. Valencias sometimes from $3 to $11 per box.

Q. What is the shipping season from here?

A. The shipping season for navels is from October to May; for Valencias from June to September, and seedlings from April to July.

Q. How many cases of oranges were shipped from Riverside Valley during the past season and what were the returns?

A. In 1906, 28,000 car-loads of oranges were shipped from Southern California, bringing $30,000,000. Growers got $12,000,000. Riverside growers $3,500,000. Railway company and other expenses absorbed the remainder.

The following business letter was written by one of the pupils during the recitation.

SHERMAN INSTITUTE, RIVERSIDE, CAL., April 4, 1907

Mr. W. W. Watson, Chicago, Ill.

DEAR SIR:—I am shipping you today by A. T. & S. F. Ry. car No. 3029, 384 boxes of navel oranges, which are of first-class quality and were grown in San Jacinto section.

Will you please endeavor to secure the highest market price, and when sold, remit to me the proceeds less your commission, which, I believe, is 7 per cent. of the gross receipts. Upon receipt of your bill of sale, if the markets are satisfactory, I will be glad to ship you more oranges.

Very respectfully,

Q. What is the value of full-grown orange trees?

A. A healthy and vigorous bearing tree is valued at $100. The profits in one year will pay a large interest on $100.

Q. What is the value of some orange groves in Riverside Valley?

A. They are valued at from $1,000 to $1,800 per acre according to localities as well as kinds and condition of trees. Valencias are as high as $2,000 an acre.

Q. What are the diseases of orange trees and how are they treated?

A. For the insects which infect orange trees, fumigate at night or on dull days for red, white, and purple scales, as fumigating in the bright sunlight would burn the leaves. For black scale the trees should be sprayed.

Diseases rarely occur in orange groves that are well cared for. In gum disease the parts should be well scraped with a knife, then apply coal tar and ashes. For die back, cut the tree back and give a good dressing of barnyard fertilizer to stimulate the growth. (This answer was written on the blackboard by a pupil.)

ROUND-TABLE CONFERENCE

CHAIRMAN—HON. FRANCIS E. LEUPP, COMMISSIONER OF INDIAN AFFAIRS WASHINGTON, D. C.

Nearly everybody else has had a demonstration here, and now I want one of my own. These two boys (calling two pupils to the front) are from Oraibi, where the old hostile chief, Yukeoma, told me last year that his followers were not going to let us have any children from their Pueblo. I ventured to disagree with him: I thought we *should* continue to have Oraibi pupils in our schools. These two boys are here, as you see, and have been showing you what they have learned during the last year. (*Quod erat demonstrandum.*)

These boys, like the others at Sherman Institute, are learning not simply the lessons taught in books, but more valuable things—how to carry responsibility, how to take care of themselves, how to hold their own against the whites. I am glad to see that monogram on the Sherman Institute banner (pointing to the Sherman flag containing a monogram composed of the letters S. I.). It

comes pretty near being a dollar mark. Sordid as it may sound, it is the dollar that makes the world go around, and we have to teach the Indians at the outset of their careers what a dollar means. That is, in some respects, the most important part of their education. We are doing it everywhere. Last year we sent about forty boys from Fort Defiance—Navajo boys—into the beet fields of Colorado. They came back a month or two afterward with some $1,600 jingling in their pockets. Every one of these boys learned a valuable lesson. Moreover, every one of those dollars has been invested in sheep; and when those boys come to make their homes they will have something to start on—something they own themselves, and something that they got by their own labor. That is the reason we are trying to teach these Indians such practical lessons as we have had here today.

I want to say just a word about Miss Angel De Cora's address. When it is printed I hope you will all read it, because Miss De Cora could not speak loud enough for all of you to hear, on account of the condition of her throat. Somebody came to me this morning and wanted to know if I had seen an article in the local press in which doubt was expressed whether she would have the support of the authorities in such work as she is doing. As the idea of reviving, or perpetuating, Indian art and its ideals was one of my earliest aspirations, and as I had to struggle hard with Miss De Cora to induce her to leave the private practice of her profession and come in with us and take up this task because I thought her better fitted for it than anyone else I knew, I feel that I am reasonably safe in prophesying that, thru this administration at least, she will have "the authorities" behind her.

Now I shall be very much pleased to hear from anyone who has any critical or other thought to express, or any inquiry to make; and I hope you will forget all about our relative official rank, and treat me with perfect freedom. We are all here together as fellow-workers, standing on the same footing, trying to do something for our Indian people; and if we can help each other in an out-and-out talk in this way, it certainly will be a very well spent time for me and I trust will be for you.

Question from the audience.—For how long a time has this idea of teaching the Indians to take care of themselves been agitated?

Answer by Commissioner Leupp.—In a theoretical way, it has been worked on for a long time, but we have been trying lately to carry it out in a more practical fashion. For example, instead of herding the Indians together and keeping them away from the whites, we have tried to get them mixed in with the white people, in the hope that they will absorb a good deal of valuable knowledge from experience—not always the best that the whites have, but something of importance to their lifework. Instead of shutting them up in a hot house and trying to train them artificially by furnishing them with special implements and teachers and everything else, we are trying to make them learn right out in the open, as people of other races do. We sent last year a thousand or more Indians away from the reservations and into the world to tackle all branches of labor; we sent them into the Colorado beet fields; we sent them to dig on the irrigation ditches; we sent them where they could work at building railroad embankments, and in all those ways tried to accustom them to the working-habits of the white man.

It does the boys and girls good to go out to work away from the schools even during the school months. I am perfectly willing to credit a school with all their children put out in this way, because it is quite as essential a part of their education as anything they can learn from books. My policy includes not only the sending of Indians out among the whites to learn their ways and break away from reservation life, but I have procured from Congress, as probably some of you do not know, two or three pieces of legislation covering other phases of the subject, but all pointing in the same general direction. One, for instance, permits us to give an Indian, as soon as we are satisfied of his capacity for taking care of his own affairs, his patent to his land in fee; another, to give any Indian, when we are satisfied of his ability to care for himself, his share of the tribal fund. In that way we are trying, just as fast as we can, to take each Indian out of the mass and set him on his feet as an individual citizen just as soon as he is able to take care of himself. We should do for the Indian precisely what we are doing for the white man—give him the rudiments of an education, teach him what money is, teach him the value of things, and then let him dig out his own future. Of course it means that a considerable number will go to the wall, but those who survive will be well worth saving.

Q. What is being done in the schools and on the reservations in the way of temperance work?

A. Only the general teaching of temperance. I think perhaps the most valuable work for temperance is to get hold of a conscienceless dramseller here and there and put him in the penitentiary. That is a more practical lesson, as a rule, than teaching what are the ingredients of alcohol and what effect it has on the human system. We were beaten in one big legal fight on this subject in the spring of 1905. But altho the dramseller in that case won, the Government had at least the satisfaction of learning that it had put him out of business and left him $1,500 in debt. If we could simply break up the trade of every one of these fellows, I think we could keep them from debauching the Indians with impunity.

Q. I was reading an article the other day in which it was said that the present idea was to transfer the Indian schools from the jurisdiction of the United States Government to the care of the different states. Is that so?

A. That is in a measure true, but of course no such sweeping statement should go unchallenged. What I am aiming to do is to take the non-reservation schools—which, as I said a day or two ago, are on the road leading downward—and turn them over to the state or local authorities. A plan I should like to pursue is this; to get the states to take any of the non-reservation schools which we can spare (and there are about twenty of these) with the understanding that they shall be preserved as educational institutions by the state or local authorities, and that for, say, the next ninety-nine years, any Indian who wants an education there shall have his tuition free—he to furnish his own board and clothing, books, etc. If I could induce the states to take them in this way, and the United States Government to give them up, I should achieve something I have been looking forward to for a long time. Dartmouth College, in New Hampshire, started as an Indian school, and I believe it has in its charter as a college a provision that any Indian who wishes an education there can have his tuition free. That was what gave me my idea many years ago, for I saw that in that way we could get out of the tangle into which we have fallen. The non-reservation schools, most of them, are simply kept in existence by sending out runners in every direction to gather the children in by main strength, if they have to be half-torn to pieces in the process when two or more emissaries get after them at the same time. I want to get rid of that sort of thing as quickly as I can, and bring our work down to the point where every school will stand on its own two feet, and derive its support from the fact that it is actually needed and fills the want. The resolution of nineteen or twenty of our non-reservation schools into state schools for whites and Indians indiscriminately would tend to the same end as the labor program already described, of mingling the races together.

With regard to the schools on the reservations, they will gradually merge into State

and local institutions also. In time we shall put one reservation boarding-school after another out of commission. Then will come the question: "What shall be done with it?" The local authorities will probably say, "We would like this for such-and-such an institution," and the Government will simply sell it for that purpose; or, if it is to be continued as an educational institution with such proviso as I spoke of, the Government would doubtless be willing to make a present of it to the state. Finally our little day schools, which are at the foundation of our whole system will in all probability merge, in the course of twenty or twenty-five years, into little village schools, continued by the local white government, but conducted for all the people alike; they will become a part of the great common-school system of the United States, which has done so much to make our country what it is today.

Q. You spoke of putting the Indian upon his own feet so that he can take care of himself and children. When we give the Indians land and tell them to work for themselves, it seems to me there should be someone to look after them and see that they progress in the right direction—someone to look after the old Indians. It seems to me that there should be white people on the reservation from whom the Indians can learn how to live, and do things properly not because they are forced to.

A. If I understand you correctly, you have struck the right note. It is good, sound sense to let the Indians do their own self-improvement, just as far as it can be done. Bring in among them the whites who will guide them and steer them, withdrawing the guidance and steering as it becomes less and less necessary, and the Indians will learn in that way that they must take care of themselves. There is nothing in the world that does a boy or a girl, an Indian or anyone else, so much good as taking care of himself. The Indians will never get one step further up while someone else is taking care of them. My notion is to put them on their feet and let them do for themselves, with only a little encouragement—as we hold out a finger before the tottering child that cannot quite walk. Let them get on in that way instead of being tied to the apron strings of the Government.

Q. If the government physician on a reservation could be made a health officer, authorized by law to see that things are kept clean and make the Indians understand that his sanitary rules come from the Government, I think the question of sanitation would be greatly improved. I find that the Indians on our reservation think that everything that comes from the Government is the thing to do. Often when I ask them to do things, they say, "Maybe Washington not like it." If the physician can be made a health officer, then he can go further, with the aid of the field matron or missionary, toward helping the Indian.

A. That is a good idea. I shall be glad to have you write me a letter about it when I get back to Washington, and I will take it up at once. The agency physician is already, by virtue of his office, the health officer of the reservation, and ought to be so understood and respected; but if it be necessary to clothe him with more of the insignia of authority, I will give every physician a large parchment with a broad blue ribbon and a big red seal attached to it, and if that does not impress our red brother I do not know what will.

Q. You spoke about giving over certain schools to other authority. Did you mean that the Indian pupils must furnish their own books, board, and clothes?

A. I meant just that. The present practice of feeding and clothing and lodging an Indian free in order to make it easier for us to force upon him a degree of learning which he does not wish, and of which in most cases he can and will make no use, is all folly. It only cultivates the spirit of pauperism in him. A grounding in the rudiments he should have, whether he seeks it or not; but everything above that he should aspire to, and be willing to work for, just as the white youth does.

Q. Now in regard to the allotment question: Do you think the Indian ought to have been made to earn his own land just like others in this country?

A. Most assuredly. I don't mean the old Indians but the able-bodied ones. We began all wrong, by giving the Indian his home whether he wished it or not, and then telling him

he must work and earn his living on it. That is reversing the process of natural evolution. But an earlier generation did just that; we inherit the system, and now, as President Cleveland once expressed it, it is a condition and not a theory that confronts us. We have got to make the best of a bad situation we didn't create for ourselves.

The old-fashioned Indians we cannot hope to do anything with; they will have to be gently eased down the steps to the grave; but as they pass away other generations come in after them whom we can steer aright because we can begin while they are still young enough. The initial mistake was made long ago, before any of us were handling affairs. Let me show you the logic of it. The Government started out with the idea that the Indians at one time owned all the land, so, when the land was to be divided up, every Indian must have a piece of it. Now as that piece of land is not going to be in the city, but in the country, what shall the Indian do with it? We must require him to farm it, of course, because farming is the only use the open country can be put to. So it was decreed that every Indian must be put upon his piece of land and required to make his own living there.

Now what would happen to us if we were each set down upon a piece of land and told to make our living out of it regardless of our wishes or abilities? I know what would happen to one man—I should starve to death. It is the same way with the Indians as with us; they have as great a diversity of talents as we. One is a mechanic, another is an artist, another takes kindly to the law, another does clerical work exceedingly well. To take all these people indiscriminately and say, "You must plow your land and sow it, and reap and market your provisions, and in that way make a living," is about as sensible as to decree that all the people of the world should follow one pursuit. What we ought to have done in the first place was to absorb the Indians into our civilization, never recognizing them as a separate people, never making special laws for them, but making them subject to all the laws that were made for all the people. We ought to have treated the Indian just like any human being, just as we treat any foreigner who comes to this country, only showing him a little more favor, perhaps, because he was here first. Had we started with him in that way, as soon as he had come to want land and a home he would have earned them by his own good right arm, as other men do. Then he would have appreciated them because the impulse to own his home would have come from within and not been forced upon him by an overcharitable government.

As I have said, we can't get away from the mistakes which an earlier generation made; we are obliged to deal with conditions just as we find them; but what we must do now is to work back by degrees into the right path, leaving the Indians, as soon as practicable, to make their living for themselves. And that is why, when some of you superintendents call on me to allow you to erect new buildings, to establish an electric lighting plant, to install a new laundry or a steam cooker because it saves labor, or to buy something else which the Indian will never have or see at his home on the reservation, I do not allow you all you think I ought to. When you feel, sometimes, that I do not treat you very generously, it is not because your request is bad in itself, but because the particular principle that I am struggling to carry out is exactly opposite to that represented by your request. We are trying to deal with the Indian just as we find him on his own ground—to frame his schooling with a view to what he is going back to when he leaves school. By the same process of reasoning, I want to put the Indian back upon the same footing with the white man, and with every other man of any race or color in this country—where he must, if he goes to school, pay for his own board and lodging and clothes. Unless the local government extends some special privilege to all its people I don't want the Indians to get it. I want to take him out of the category of curios and make a man of him!

Q. I have read several things that you have said in regard to abolishing all the non-reservation schools, and we at Haskell have been quite anxious about it. There has been considerable unrest; the people don't know whether the school is going to be abolished next year, or whether it is going to stand for a number of years. Is your policy a sweeping one? Do you believe in abolishing all, or do you believe there is a place for a few?

A. As I was telling the superintendents the other day, I should like to make the descent gradual. I should prefer to get rid of one school at a time, and should put Haskell among those last on the list to be abolished. I want to say with regard to Haskell that it is doing good work, just as Riverside is doing good work. I have seen Riverside's demonstrations here, and have no doubt that Mr. Friedman could get up and give some from Haskell just as good. Haskell is making quite a specialty of its clerical course, which is one that I like very much indeed, because there are a great many young Indians who are taking most kindly to different sorts of clerical work. They make excellent stenographers as well as bookkeepers, and they write well, as we all know—doubtless due to the manual training the Indian has had thru his many generations of ancestors who have had to make everything they used with their own fingers. Haskell, I feel safe in saying, will be among the last to be abolished, because its geographical position is such that it ministers to a large population of Indians who are likely to take to clerical occupations. I think that by degrees some of the branches which are now taught at Haskell might be turned over to some of the other schools, but I don't think Mr. Friedman need pack his trunk for some time to come.

Q. Do I understand you to say that the outing system should be extended to all boarding-schools?

A. The outing system I should be glad to see extended to every boarding-school in the service. Indeed, I believe the outing system is the best feature of our schools. I think it is a great deal better than all the learning we can cram into the children from books. In the first place it takes a child at an age when his disposition and his impressions of life are being formed and puts him among white people in a family, where he learns to know them and not to fear them. It also has a great influence on the white people; it teaches them that not every good Indian is dead—a fact which is very important they should learn. But the outing system is a limited one; it is bound by neighborhoods. Therefore, I am applying the outing principle on a large scale—getting children out from the schools and into the actual big world among white laborers, just exactly as white boys go out from school to earn their living. I should be glad to see every teacher adopt a little outing system of his own if he can, with a view in the future of sending the children into the larger activities of the world beyond the neighborhood in which the school is situated.

Q. Would you consider that practicable in a day school? One of the first questions asked by inspectors is: "Let me see your enrollment; let me see your attendance." And unless I can count the outing pupils I cannot show the required attendance. What should I do in such a case?

A. Refer him to the Commissioner.

I think it highly beneficial to the children to go out to work, for it keeps them often from unfortunate associations on the reservation. We know that for the ten months of the school year they are under good influences. If they had homes to go to which were like the homes of our Caucasian children, I should say that a school year of ten months was too much. I think it is just as well to send them out for a couple of months during the school year, giving them as much liberty as is compatible with the running of the school; send them out, and let them get that vital contact with the world which does us all so much good; let them learn their lessons of industry on a farm, for instance, where farming is carried on in earnest, and not in the imitation way in which it is done at the school or on an agency farm. Send them into shops where real shopwork is done to earn real dollars, not merely to preserve school discipline. I want the schools credited with the attendance of the pupils for all the time they are out on these little journeys into the world, for the children have simply changed teachers; they have passed from the teacher who is salaried by the government to the teacher who is training them because of the actual value he gets from their labor.

Q. How about sending them to the public schools?

A. In regard to the public schools, I will say that the more Indian children we can

get into them the better it will suit me. I should like to have every one of them in a public school instead of in a Government school.

Q. When the pupil's term is up, which is usually three years, would it not be a good plan to let them go out and work, and cut them off from their school supplies during the time they are out, not letting them come in for their board and clothes, and to lie around the school all day Sunday, going back on Monday morning? I have seen this done in the school where I am. They will go out and come back on Sunday with the excuse that they are sick, when really nothing is the matter with them. Would it not be well to make them go out and stay out during the two months, providing their own clothing and everything they need?

A. Yes, if they can earn them. That suggestion is all on the same line along which I have been talking. The Government has, with the best of intentions, pauperized the whole race of Indians. It is our business to try to neutralize this influence and reverse the practice.

Q. Are the larger pupils enrolled in a day school to be continued on the roll and counted as in attendance when they are out at work?

A. Yes, if it is not done surreptitiously. Be candid with the office, tell us what you are doing, and ask authority. I purpose to carry out these ideas to the fullest extent, and give our teachers the benefit of every child constructively in attendance, if they will simply take charge of the children and see that they get out and work at some gainful occupation. Such outside work is much more valuable than any they could do in the classroom. I shall every time be very glad to give the teacher the credit of having done his or her whole duty if the children are brought to the school, started in the rudiments, and then sent out to places where they can be taught actually to do something for profit.

Q. Should the old Indians and their children be educated, and is it to be forced on them?

A. Some of the old Indians have learned a thing or two of late years, particularly those who have come into close contact with a school. That is where the day school is doing the great work. It is right under the nose of the old Indian, and after a while he learns to respect it. Of course, there is still, among some of the old Indians, a very great opposition to education, or to what we style education. The old-fashioned Indian wants his child to follow the old Indian ways, and believes they are better for it. We have to put the school proposition on very practical ground with him. First we appeal to his instinct of self-protection. We say: "The white people are coming into your country, and unless you and your people know the English language and are able to read and write and cipher a little you cannot hold your own against the whites. Now it will do no good for you to say the whites ought not to come—that they ought to stay away and leave you alone—for they are coming, and are here." After we have appealed in that way, if he still resists, we say plainly to him that his children must go to school long enough to learn the simple things, whether he likes it or not. And if he still does not listen to the words of the Government, we send the policeman or the soldier to show him that we mean business.

Q. Is there uniformity in the treatment of the different tribes thruout the United States? And how, for instance, does the treatment of the California Indians by the Government differ from that of the more savage tribes?

A. A full answer to that question would be pretty complex. The tribes differ, of course, as do different peoples of the Caucasian race, and we have to adopt a variety of methods suited to the respective tribes. We treat an agricultural people like the Hopis, who for many years have been subsisting in a poor way by their own labor, in a very different fashion from that in which we treat the proud and warlike Sioux. The California Indian, in my judgment, is in a better position today than nine-tenths of his brethren in the United States, and he is so because the Government has done less for him. He has been stripped of pretty nearly everything—a blessing in disguise, for by virtue of that he has

been obliged to get down and work for a living; and I look to see more Indians of the California tribes saved than of any other group in the United States.

Q. I have been very much interested in the outing system, and I should like to ask you this question: Suppose a person comes to a large school to get fifty pupils to work for him, what is the basis of choice by which a superintendent or teacher should choose those fifty? What should lead him in his choice?

A. I will tell you what rule I should apply; I should study my children to know who among them would receive most benefit from going out—that is, which ones show some capacity for appreciating the advantages of such a chance to touch elbows with the world. When a child shows a disposition toward progress, he should have the benefit of the outing rather than the one who will simply take a lesson because you require him to, and let it run out of his mind as water runs off a duck's back. It is a mighty good plan, whether you are dealing with children or with adults, to give your help not to the inert, but to those who show some interest in helping themselves.

ADDRESS

ELMER ELLSWORTH BROWN, COMMISSIONER OF EDUCATION OF THE UNITED STATES, WASHINGTON, D. C.

I am wholly without experience in the matter of Indian education and I shall not try to instruct you on that subject. It is only fair, however, that I should say that I am at this time specially and deeply interested in all that you are doing in the education of the Indian, because of the problems we find in the Bureau of Education in the education of the Indians and Eskimos of Alaska; and I feel sure the Bureau of Education has very much to learn from the Bureau of Indian Affairs with reference to the problems that confront us in Alaska. In some respects they are the same problems that you are facing in the Bureau of Indian Affairs; and in other particulars they are very different, particularly our problem of the education of the Eskimos and the special type of education which is based upon the introduction of the reindeer—the introduction of a new industry, necessitating and intended for a new type of industrial education for those people.

Now, you are engaged in various kinds of industrial education among the Indians, and I am sure that for both of these classes of natives which we have to deal with in Alaska we shall learn very much from what you are doing here. And I should add that we shall do our best to accomplish something up there that may make some small return for what we shall get from you.

It is possible that I may be able to make some little suggestion of a purely general sort, I cannot say what ought to be done, but that is not what you expect of me. Probably you expect me to make some suggestion as to the bearing of these educational efforts that you and the Bureau of Education are engaged in upon the larger educational problems of the time. There are two ways that occur to me now in which it seems that this education of the Indians and Eskimos has a very important bearing upon the large educational movements of the time. The first of these relationships I would speak of somewhat in this way; repeating what has been said elsewhere, our educational development, our development of elementary education, particularly within the last

few years, has shown a peculiar tendency of two types of education of apprenticeship. I think it is fair to expect that these two kinds of education, which are really the commanding types of education and which have gone apart for many centuries, are now to converge and give us a new type of school. I think that in our general education we are working toward the type of school that is different, very different, from the ordinary elementary A B C and arithmetic school of the past, and that the new type of school is but fitting together the best things of the literary school and the best things of the whole apprenticeship system. The school means this—that a man is to be prepared for the skill by the actual doing of things. Now both of these things are needed in a well-developed education—both the apprenticeship and the ideas that shall give to the apprenticeship its value.

What you are doing in these things in the Indian schools is teaching us a lesson for all our education; and that brings me to the second way in which I think our general education, and such special education as you have to do with, are coming together. It may be somewhat as follows: We are finding of late that the peculiar types of education which have arisen under special conditions have taught us things that we had overlooked where the conditions were more normal. In some respects the problem of education has been simplified and clarified for us by putting it in the form of the education of a special class. Now, that has happened in a dozen ways of late. Curiously two of the most significant ways in which it has happened have come to us from the state of Alabama. I refer to Tuskegee and Helen Keller. In one year there appeared Booker T. Washington's *Up from Slavery*, and the *Story of Helen Keller's Life*, and for the general student of education both of these books were significant—tremendously significant, and stimulating—for the work of general education. They showed us some things about the training of the senses under those very difficult conditions that Miss Sullivan had to fight, that we had not seen before. They showed us what we can do to advantage for white people under normal conditions, by showing what the colored man has done under the tremendously accentuated difficulties of the man who is working his way up from slavery. These two things wrote large for us some of the things that we had overlooked in our general education. Now, as I have said, in those things are the finest, the most suggestive relationship, so far as I have studied the question between the work you are doing in the Indian schools and the work of general education with which the Bureau of Education is mainly concerned.

The little more that I have to say I should like to say with reference to those two relationships. You are to teach us lessons for general education, because the peculiar conditions of the education of the Indians are throwing out in sharp relief things that would otherwise be overlooked in the education of the normally constituted civilized community. Furthermore, the particular way in which you are to give us help in the improvement of our educational practice, is by showing us how the training of a man to do an actual day's work

by doing an actual day's work, is going to fit into and reinforce the traditional instruction of the school. Great stress has been laid upon the work of manual training and the work of agriculture. I may have something to say about these before I get thru, but I should like to turn now to another side of this work of apprenticeship that seems to me of even greater significance for our general education. This other thing that I wish to speak of specially—and I do it with great reserve because I know so little about it—is the manual training, the domestic training, you provide for girls. In some respects, the work you do for girls has larger significance for the making of a sound American civilization among the Indians than anything you can possibly do for the boys. We, in our problem of general education, are faced by the normal conditions of our time. We realize the fact—and if we did not realize the fact all we have to do is to read the morning paper and we would realize it—that a large part of the moral issue of this present day centers in the home. What are our schools, our ordinary schools for white boys and girls going to do to improve these conditions that affect the American home? That, I believe, is one of the most urgent problems of general education in this present time. Now I don't believe that good cooking is going to solve this problem, but I do believe that it will do something towards solving it. As a man, I may say frankly that for me good cooking makes a great difference in the home, and I trust I give good evidence that my wife has cared for that side of the matter.

One of the most interesting things that have come to us from Europe of late is the story of what is done by the London school board to teach good housekeeping to the girls of the poorer districts of London. There again we are getting suggestions from abnormal conditions that should teach us lessons for our normal conditions. The accounts that have come to us are not all complete. Some of them are in the form of little notices in such articles, for instance, as that of Mrs. Kelley in a recent number of the *Century Magazine;* some information has come to us by word of mouth from these teachers that have been visiting us under the arrangements made by Mr. Mosely. What has been done seems to be simply this, that in the neighborhood of some of the large board schools in the more crowded portions of London, houses have been secured that are very much like the ordinary house in which the ordinary life of these people is carried on. And into these houses girls have been sent in classes from the neighboring school to do the ordinary work of cleaning, making beds, cooking, all of the ordinary things that make a house homelike and comfortable and sanitary. Now this one little experiment has appealed to me most strongly. I do not believe that that sort of thing can be carried on for a long time in any neighborhood without having an effect, not only on the health of the homes of that neighborhood, but also upon the sense of the home. And the sense of the home is the thing we want to cultivate. Now you are doing a work for girls of which I get some glimpses here and there. It is, I believe, preparing the girls to make, under the conditions that obtain in the communities, simple, dignified, clean, attractive, American homes; different,

undoubtedly, from the home of the East, and that should be so—I should think that the homes of one race ought to be different from the homes of another race. There should be some things that represent the peculiar tastes, the peculiar excellence of that race, whatever it may be—it should encourage those elements of comfort, of neatness, of self-respect, of care for the things that are becoming and tasteful, for those things that go into homes everywhere that there is anything that we Americans would call a home. In so far as you can teach the girls of your Indian schools to make homes of this sort, I think that you are preparing the Indians to resist the bad influences of the white man, and I hope you will help to teach the white man how to do the white man's work.

Now this is the most that I have in mind to say at this time. The work in manual training and the work in agriculture is of very great significance to us in general education. At this present time we are finding in the United States a great deal of interest in agricultural education. Do not feel that what you are doing in the way of training for agriculture in the Indian schools is done as a separate and isolated work simply because you are in the Indian schools. You are doing it as a part of the great movement that affects our schools in general. In half a dozen of the states legislation has been had during the last year with reference to agricultural education. The national government has gone on step by step furthering agricultural education. One of the most important steps was taken early in March of this year, when a large addition was made to the endowment of agricultural and industrial colleges in the states and territories, a portion of which may be used in training teachers of agriculture for the lower schools. This provision will have a very great and significant influence on the extension of agricultural education. Now I believe that you will be able to work out important problems in your teaching of agriculture, in your apprenticeship in the work of farming, in your apprenticeship in the care of live stock. I believe that you will be able to teach in your apprenticeship along these lines lessons that will be of use to us in our agricultural work. It is in view of such questions as these that your gathering here is of more than ordinary interest and certainly of an interest that extends far beyond the range of the education of the Indian, which of itself is so fascinating.

DEMONSTRATION LESSONS

Correlating Arithmetic and Carpentry

PRESENTED WITH A CLASS OF INDIAN PUPILS BY CLARENCE L. GATES, PRINCIPAL TEACHER, SHERMAN INSTITUTE, RIVERSIDE, CAL.

I shall try to show briefly the manner in which we correlate the industrial with the literary work at Sherman Institute. This makes both of vital interest to the pupils; it enables them to speak, read, and write intelligently of their work and to perform it understandingly. In this lesson I have chosen the

subject of carpentry, because it is one of the most important industries for boys. In correlating this subject, the style of the houses best suited to local needs must be studied. All industries taught at an Indian school, however, furnish abundant material for classroom work in reading, composition, drawing, and numbers.

Q. What kind of houses do the Indians have on your reservation in Montana?

A. They have frame houses.

Q. What kind of houses are on the reservation in Southern California?

A. Both frame and adobe houses.

Q. Which is the better—frame or adobe?

A. A frame house is better.

Q. Why?

A. Because adobe houses are not neat and when they get out of repair they cannot be repaired easily.

Q. What kind of a house would you build if you wanted a house?

A. A frame house.

Q. What is the first thing you would do if you were going to build?

A. I would first draw my plans, then make an estimate for the amount of lumber that would be needed.

Q. Mention the different kinds of lumber needed in the framework of a house.

A. Sills, floor joists, studding, ceiling joists, plates, rafters, etc.

Q. For what else must you estimate?

A. Hardware—such as nails, butts, locks, sash pulleys, sash cord, sash locks, hinges, etc.

Q. Is there anything else for which to estimate when building a house?

A. For finishing materials, doors, windows, base boards, cornice, shingles, siding, flues, and foundation.

Q. What is the first step in the work of building?

A. The foundation must be built good and strong. It must be square and level.

Q. How would you square the foundation?

A. By measuring six feet on one end from the corner and eight feet on the side, then if the hypothenuse is ten feet, the corner is square. (Alfred illustrated the above by drawing on blackboard.)

Q. After the foundation is built, what must be done?

A. We must measure and cut the floor joists and place them about sixteen inches apart, bridge them and make them solid.

Q. What step is next in order?

A. The studding and plates are put into place and nailed and braced. Then we lay our ceiling joists and roof framework, such as rafters, ridge board, collar beam, etc.

Q. After the framework is complete what would you do?

A. Cut the door and window openings, and make the door and window frames and put them in place.

Q. What is very important in this work?

A. Careful cutting. Every piece must be square on end and stand straight and be square and level.

Q. After the framework, what work is next to be done?

A. The outside finishing; then the inside finishing.

Q. How are houses finished on the inside in Southern California?

A. Houses are plastered.

Q. Peter, you may write a composition on the blackboard, on "House Framework." Ray, you may explain the drawing of a plan of a house, showing the ground plan, side, and end with truss roof.

Q. What does it cost to manufacture adobe brick in southern California?
A. The cost is very little, if you live in a locality where there is adobe mud.
Q. How are the bricks made?
A. They are molded, then laid in the sun to dry.
Q. What is the price of lumber in southern California?
A. About ten dollars per thousand feet.
Q. How do you know?
A. The carpenter told me.

Problem

Alfred, at ten dollars per thousand, find the cost of the lumber for the framework of the house Ray has just planned.

62 pieces of studding	2×4 in. by 10 ft.—	413½ ft.
6 plates	2×4 in. by 18 ft.—	72
8 plates	2×4 in. by 24 ft.—	128
8 sills	2×4 in. by 18 ft.—	96
4 sills	2×4 in. by 14 ft.—	37⅓
2 sills	2×6 in. by 18 ft.—	36
16 floor joists	2×12 in. by 18 ft.—	576
9 ceiling joists	2×6 in. by 18 ft.—	162
18 rafters	2×4 in. by 14 ft.—	168
Total number of feet of lumber.....		1688⅔
		$10.
		$16.880
⅔×10=20/3 or		6⅔
		$16.886⅔

Peter exhibited the model which he made of a house built after the plans drawn by Ray. He handled and told the name of each part, measuring and giving dimensions, and set up the framework of the house.

PRIMARY LESSON IN GARDENING

PRESENTED WITH A CLASS OF INDIAN PUPILS BY MISS CARRIE M. DARNELL, TEACHER, SHERMAN INSTITUTE, RIVERSIDE, CAL.

By correlating the classroom subjects with the industrial work of the school, pupils, while learning to speak, read, and write English, gain a great deal of valuable information concerning work of all kinds: they draw pictures of objects handled, they write first words, then phrases, which gradually lead up to short sentences, such as, rake; the rake; my rake; I have a rake; we have two rakes; Juan has a little rake; thus action words and governing words are gradually introduced. Little counting lessons and number problems also creep in; for example,

2 rakes and 1 rake are 3 rakes.	2 rakes	4 hoes
	1 rake	2 hoes
	3 rakes	2 hoes, etc.

I frequently *write* the word upon which I am drilling. To make the transition from script to print easy, I typewrite all words or sentences, just as I have written them on the board, and let pupils read them in that form. When the words are mastered I turn to a lesson in some reader, on the subject we have studied in class. Pupils usually find but little difficulty in reading the printed

page. The industrial work given in the classroom furnishes action, which the child requires, and enables the teacher to clothe dull, prosy classroom subjects with interest.

To those who may say this lesson has been given before, I explain that it would be tedious to you to listen to the continuous drill which is necessary in teaching non-English-speaking pupils the common words of a new language; and you would have no idea of the results. I have drilled for many months on the simple words in daily use in our language, and give this lesson to show you what results may be accomplished by perseverance and industry, and by using objects which appeal to the child mind. You will find it necessary to interest the child in something he can grasp. Words alone convey nothing to his little mind, but when preparing a nice luncheon (in teaching cooking in the classroom) words stand for objects that enlist his interest.

Industrial work, therefore, gives rudimentary knowledge on a variety of subjects. The work in this demonstration lesson cannot be given in one lesson in the schoolroom. It will depend upon the mental development of the children, and their knowledge of English. So the work must be given more slowly to some than to others. All work should be given gradually, one word at a time, and to those who grasp it less readily, persistent drill and infinite patience on the part of the teacher will be necessary.

I will give a brief lesson showing how we correlate garden work with classroom subjects:

Q. All the beautiful vegetables and flowers have a home, just the same as the boys and girls. Where is this home?

A. In the soil.

Q. Name some of the kinds of vegetables that like to live down under the soil.

A. Potatoes, beets, turnips, onions, etc.

Q. Give me the names of some of the vegetables that live above the soil and see the sunshine.

A. Tomatoes, beans, corn, melons, etc.

Q. Why do we make gardens?

A. To have things to eat and to sell.

Q. Each may name some vegetable we raised in our little garden at Sherman.

A. ....

Q. Susie, how large is your garden?

A. Four feet by six feet.

Q. Susie may measure on the floor the length and breadth of her garden.

A. Susie says: "This ruler is one foot long; six times this ruler will be six feet; four times this ruler will be four feet."

Q. When may we make our school gardens?

A. In the spring or in the autumn.

Quincy may pass to the board and write the answer to my questions.

Q. What is done first in making a garden?

A. Quincy writes: "The ground is plowed."

Q. Juan may read what Quincy has written. Why did they plow the ground?

A. Quincy writes: "To turn over the soil."

Q. Susie may read what Quincy has written. The other pupils may answer orally.

A. To soften the ground; to loosen it so we can sow the seed.

Q. How is the garden bed made?

A. It is sunken in the ground two inches.

Q. Why made this way?

A. So it will hold the water.

Q. Where did you plant the seeds?

A. In little furrows, one inch deep.

Q. Then what did you do?

A. Covered the seed over with soil.

Q. Why?

A. So they will be in the dark; to get moisture to sprout; so the sun will not burn the roots.

Q. Then what did you do?

A. Watered it.

Q. How often should we water our gardens?

A. Once a week.

Q. Why water the garden?

A. So the plants can take food from the soil.

Q. When the plants came up what did you do?

A. Pulled up the weeds.

Q. Why pull up the weeds?

A. They drink the water and choke the plants.

Q. Frances, John, Rosario, each may draw a picture of one of the vegetables raised in your gadren.

A. I raised a turnip. (Drawing.)
I raised a radish. (Drawing.)
I raised a beet. (Drawing.)

Juan may go to the board and write answers to my questions.

Q. How many radishes did you raise?

A. I raised twenty-four radishes.

Q. What did you do with them?

A. I ate four radishes and sold two bunches.

Q. You may write upon the board how many radishes you had in one bunch.

A. Ten radishes.

Q. How many radishes in two bunches?

A. 10 radishes
10 radishes
20 radishes

Q. How many radishes did you sell?

A. Twenty radishes.

Q. How much money did you get a bunch?

A. I got five cents a bunch.

Q. Write how much you got for two bunches?

A. 2×5 cents are 10 cents.

Q. Sarah, tell us of your beets?

A. I raised two rows of beets.

Q. How many beets in each row?

A. I had nine beets in one row and 8 beets in another row.

Q. You had nine beets in one row and sold four beets out of that row, how many did you eat out of that row?

A. $9-4$ equals 5. I ate 5 beets out of that row.

Q. You had eight beets in the other row, how many did you eat?

A. I ate four beets out of that row.

Q. How many beets did you have left?

A. I had eight less four which equals four, so I had four beets to sell.

Q. How many beets did you sell?

A. I sold four beets from one row and four beets from the other row, four and four are eight, or four beets and four beets are eight beets.

Q. How much money did you get for these beets?

A. I got six cents for each bunch, I had two bunches; two times six cents are twelve cents.

DEPARTMENT OF TECHNICAL EDUCATION

SECRETARY'S MINUTES

WEDNESDAY MORNING, JULY 10, 1907

The meeting was called to order in the Polytechnic High School, by J. H Francis, of Los Angeles.

After opening prayer by Rev. Robert J. Burdette, of Pasadena, Cal., Louis C. Monin, dean of Armour Institute of Technology was chosen chairman, and Alfred Guillou, Throop Polytechnic Institute, Pasadena, Cal., secretary.

Upon motion the chair appointed the following committee to nominate officers for the coming year:

A. H. Chamberlain, Pasadena, Cal. Mrs. Ella Flagg Young, Chicago, Ill.
J. H. Francis, Los Angeles, Cal.

Louis C. Monin read a paper, "The Scope of the Department of Technical Education." After discussion the tentative conclusion was reached that this department should include collegiate and secondary technical education.

Mrs. Ella Flagg Young, of the Chicago Normal School, then read a paper, "The Proper Articulation of Technical Education within the System of Public Education." George P. Phenix, Hampton Institute, Virginia, discussed the paper.

President Joseph Edward Stubbs, of Nevada State University, Reno, read a paper, "Aims and Methods of Technical Education as Compared with the Aims and Methods of a Liberal Education."

The meeting then adjourned.

ALFRED GUILLOU, *Secretary.*

THURSDAY MORNING, JULY 11

The department met in the First Methodist Church, and was called to order by Chairman Monin.

E. H. Barker, of the Polytechnic High School, Los Angeles, Cal., was appointed to act as secretary of the meeting.

Announcement was made that an invitation had been received from Rev. Robert J. Burdette, stating that the subject of his next Sunday's discourse would be "Head, Hand, and Heart" and inviting the Department of Technical Education to attend. The secretary was instructed to reply expressing appreciation.

The first paper of the session on "The Agricultural College and Its Relationship to the Scheme of National Education" was read by E. J. Wickson, dean and acting director of the College of Agriculture, University of California, Berkeley, California.

A paper on "Trade Schools and Trade Unions" was read by George A. Merrill, principal of the California School of Mechanic Arts, San Francisco, California.

A paper on "Technical Education in High Schools and Rural Schools" was read by Arthur H. Chamberlain, dean and professor in Throop Polytechnic Institute, Pasadena, California.

A brief discussion then followed.

The Nominating Committee presented its report as follows:

For *President*—Louis C. Monin, dean of Armour Institute of Technology, Chicago, Ill.

For *Vice-President*—A. B. Storms, president of Iowa State College, Ames, Iowa.

For *Secretary*—George A. Merrill, principal of California School of Mechanical Arts, San Francisco, Cal.

The report was adopted and the nominees elected.

Mr. Merrill suggested the appointment of a permanent Committee on Co-operation between the educational and industrial organizations and allied interests. It was moved and carried that the officers of the Association act during the present year as that committee, adding to their number as may seem desirable, the same to be called a "Committee on Co-operation."

On motion it was ordered that a Committee of Seven on Admission Requirements to Technical Colleges be appointed by the chair to make a partial report at the next meeting of the Association.

The department then adjourned.

E. H. BARKER, *Secretary.*

The following have accepted appointment as members of the committee of seven on Entrance Requirements to Technical Colleges:

President Fred W. Atkinson, Brooklyn Polytechnic Institute (Chairman).
Professor Harry W. Tyler, Massachusetts Institute of Technology.
Dean M. E. Cooley, University of Michigan.
Dean Frederick A. Goetze, Columbia University.
Dean A. Marston, Iowa State College.
Professor Ira O. Baker, University of Illinois.
Professor Dexter S. Kimball, Sibley College, Cornell University.

IRWIN SHEPARD, *General Secretary.*

THE SCOPE OF THE DEPARTMENT OF TECHNICAL EDUCATION

LOUIS C. MONIN, DEAN OF ARMOUR INSTITUTE OF TECHNOLOGY, CHICAGO, ILLINOIS

1. *Historical.*—In the course of the year 1903, several members of the National Educational Association interested in the cause of technical and industrial education conceived the plan of petitioning the Association for the organization of a new department, to be known as the Department of Technical Education. Having received the promise of active co-operation from many of the most prominent educators of this country and enthusiastic replies from a great number of teachers from every state of the Union, the twenty-five signatures necessary to make application to the Board of Directors for the establishment of such a department were secured and the formal petition was transmitted to the Board on December 29, 1903, as provided in Article II, sections 1 and 2, and Article IV, section 8, of the Constitution. The petition was signed by the following:

GEORGE N. CARMAN, director, Lewis Institute, Chicago.
EDMUND J. JAMES, president, University of Illinois, Urbana, Ill.
CYRUS NORTHROP, president, University of Minnesota, Minneapolis, Minn.
V. C. ALDERSON, president, Colorado School of Mines, Golden, Colo.
M. C. HUMPHREYS, president, Stevens Institute of Technology, Hoboken, N. J.
LOUIS E. REBER, dean, School of Engineering, Pennsylvania State College, State College, Pa.
F. O. MARVIN, dean, School of Engineering, University of Kansas, Lawrence, Kan.
A. S. DRAPER, commissioner of education, Albany, N. Y.
GEORGE A. MERRILL, principal, California School of Mechanic Arts, San Francisco, Cal.
F. PAUL ANDERSON, dean, School of Mechanical and Electrical Engineering, State College of Kentucky, Lexington, Ky.
ALSTON ELLIS, president, Ohio University, Athens, Ohio.
T. M. BROWN, Lehigh University, South Bethlehem, Pa.

Charles S. Howe, president, Case School of Applied Science, Cleveland, Ohio.
C. L. Mees, president, Rose Polytechnic Institute, Terre Haute, Ind.
Robert L. Slagle, president, State School of Mines, Rapid City, S. D.
J. L. Snyder, president, State Agricultural College, Agricultural College, Mich.
Frederick S. Pratt, president, Pratt Institute, Brooklyn, N. Y.
A. B. Storms, president, State College of Agriculture and Mechanic Arts, Ames, Ia.
Lyman Hall, president, Georgia School of Technology, Atlanta, Ga.
George W. Plympton, director of Cooper Union, New York City, N. Y.
G. Stanley Hall, president, Clark University, Worcester, Mass.
James MacAlister, president, Drexel Institute, Philadelphia, Pa.
Alfred Bayliss, superintendent of public instruction, Springfield, Ill.
H. H. Belfield, dean, University High School, University of Chicago, Chicago, Ill.
J. J. Schobinger, dean, Harvard School, Chicago, Ill.
J. G. Grant, dean, Kenwood Institute, Chicago, Ill.
L. C. Monin, dean, Armour Institute of Technology, Chicago, Ill.

At the meeting of the Board of Directors of the National Educational Association at Asbury Park, N. Y., July, 1904, upon the motion of Director Crabtree, the petition was referred to the executive committee with power to act. This committee, in session at Louisville, Kentucky, February 28, 1906, granted the report and appointed Professor Louis C. Monin, of the Armour Institute of Technology, Chicago, to effect the organization of the new department and to call the preliminary meeting to order at the July meeting of the Association in San Francisco. As the San Francisco meeting was postponed on account of the great calamity which befell the city, the organization of the Department of Technical Education has to be effected at this time. By this inclusion of one of the most important forms of education the scheme of the National Educational Association will be rounded out.

A word of thanks is due to all who a year ago offered their help in mapping out a program for the San Francisco meeting.

2. *Suggestions and problems.*—Many suggestions in regard to work and investigation have been received by eminent educators, and are now brought to the attention of the members of the department for discussion and action.

(1) President Eliot, Harvard.—Jerome D. Greene, his secretary wrote March 22, 1906, President Eliot is very glad to see that a section of the new Department of Technical Education is to be devoted to trade schools. In his opinion the trade schools are to be one of the most important educational developments in the immediate future and they ought to be a part of the public-school system.

(2) Dr. Fred W. Atkinson, president Polytechnic Institute, Brooklyn, N. Y., writes, I am very much interested in the fact that there is to be a department of technical education in the National Educational Association. The wonder to me is, that this has not been arranged for before. Engineering education is first education and only incidentally engineering. The idea of including this new department in the National Educational Association appeals to me strongly, and I rejoice in it.

A committee on admission requirements should be appointed to tabulate the present admission requirements and to recommend a minimum standard. The technical schools which are free to do so should agree among themselves what is absolutely necessary for the applicant for admission to offer.

Someway, instructors in engineering schools should lend their aid to general education. The establishment of a department of technical education in the National Educational Association is an important step. But personal work, leadership, service is needed to support those who are developing manual training in all grades of the public schools and to aid in the establishing in every large city of trades and technical high schools.

It is my experience as a public-school man taking up the work of directing a college of technology that professors and instructors of our technical colleges are neglecting their duty which they are particularly well-fitted to perform, and, I might say, are under obligations to perform. From the kindergarten, thru the primary and grammar grades, the high-school idea of systematic orderly handwork runs. Strengthen and foster this idea and you will have better-trained students in the technical colleges. But that is not all—you will give a greater dignity, arouse a greater degree of public appreciation for the so-called practical, industrial, etc.

The men who are instructing in our technical colleges, can, if they will, give a broader, richer meaning to the term "education." They can, as it were, double the aim of public education. Education must give mental training, but it must be good, and good for something, some special thing. Why not have besides a committee on admission requirements, a committee of eight on courses in technical colleges? It is generally known that the committee of ten performed a rare and useful service for the secondary schools of the country. I believe a similar committee could perform as unique a service for the technical colleges. For example, there is a great difference in the courses in mathematics taught in our technical colleges. In some, differential equations are required of all; some perhaps spend too much time on the calculus. Would it not be possible for the leading professors of mathematics to get together and give us something worth while as the result of their meeting? Is not the same true of the other technical subjects? Could not, perhaps, ideal courses in civil, mechanical, and electrical engineering be put on paper as ideals toward which all technical colleges could be working?

(3) Professor Samuel Sheldon, consulting engineer, Polytechnic Institute, Brooklyn, N. Y.—He had intended to attend the San Francisco meeting last year and to read a paper on "Recommendations concerning the Standardization of Methods of Instruction in Civil, Electrical, and Mechanical Engineering Courses."

(4) George A. Merrill, principal of the California School of Mechanical Arts.—In the organization of the new department it would be a mistake to separate trade schools from other secondary technical schools. Trades schools are secondary technical schools. I hold, even, that the best manual-training school is a trade school; at any rate, the future American trade school will evolve out of the present manual-training high school. It is my opinion that the department of technical education should have two sections, higher technical education and secondary technical education.

(5) C. L. Mees, president, Rose Polytechnic Institute, Terre Haute, Ind.—In the organization of the department I think that provision should be made for an intimate relationship between the association and the American society for the advancement of engineering education.

(6) James N. White, dean, College of Engineering, University of Illinois.—The Society for the Promotion of Engineering Education will always, I think, furnish better opportunities for the discussion of higher technical education than will any organization in connection with the National Educational Association, but I do think that we ought to foster the new department with a view to developing elementary technical education in the secondary schools of the country, so that the universities may expect them to do much of the elementary work of the freshman years and quite possibly some work of the sophomore years.

I know that Michigan is working toward the five-year course in engineering. Lehigh tried the same thing some years ago and failed and it does not seem to me that the five-year proposition is going to be successful in the near future. In order to give any more advanced work in our technical schools, it will therefore be necessary to raise the entrance requirements, and I hope the time will come when we can include not only the usual cultural subjects given in the high schools, but also many elementary technical subjects; and it seems to me that thru the new department we should be able to accomplish our purpose,

and that the public-school men would be very glad to have some more advanced work delegated to them.

(7) ALFRED BAYLISS, superintendent of public instruction, State of Illinois.—In regard to the policy of the department in its organization, I can only suggest that I should like to have the plan such that it would reach down as far as possible into the grades of the common schools and have such adaptation as is practicable to the needs of the ungraded country school.

(8) A. B. STORMS, president, Iowa State College.—We have been obliged at the state college to consider the problem of cultural studies in our technical courses. It seems quite evident that these courses are becoming more and more exclusively technical. It is probable that higher entrance requirements will be demanded in the future in the interest of a broader culture.

(9) J. L. SNYDER, president, Michigan Agricultural College.—It seems to me that inasmuch as the land grant colleges are institutions of higher technical training, they should play quite an important part in this new department. Our agricultural colleges at one time patronized the Department of Industrial Education, which was later changed to manual training, I believe. When the department was changed in name, and to some extent in the character of its work, we naturally dropped out. I hope, however, that you may be able to interest the agricultural and mechanical colleges in this new department.

(10) V. C. ALDERSON, president, Colorado School of Mines.—Technical education is one of the greatest needs of an enlightened democracy and should not be left to private enterprise. We should follow the example of Switzerland and, recognizing the dependence of national prosperity upon technical education, set about the task of providing an education for all classes of workers suited to their callings.

According to these suggestions it may be proper to divide the work of the department into two sections, each considering distinctive pedagogical and administrative problems, viz.:

(1) Higher (collegiate) technical education (including the argicultural college).

(2) Secondary technical education (including the technical high school, technical courses in the high school, mechanic arts schools, trades schools, schools of home economics).

There is no intention to curtail or to overlap any work of the other departments. But much may be done in the future in the direction of adjustment and proper assignment of fields of investigation.

It is not for me to outline a policy nor even a definite plan or program of work. My few remarks merely serve the purpose of announcing to you the fact that the National Educational Association proposes to include the latest and very important phase of the educational development of our country among the topics worthy of systematic consideration. May the suggestions made by the eminent men mentioned prove helpful in our efforts to start the new department upon its career of usefulness.

Education according to Pestalozzi must be more than the acquisition of useful knowledge or even the training of mental powers; it must be amelioration of the individual and of the race and this, whether it be education for self-development, i. e., liberal education, or, education for self-support, i. e., technical education. For the end of life, as well as of education, is always an ethical one and teaching is more than mere instruction; it must be an inter-

pretation of life and must "invigorate life thru knowledge." The old saying that knowledge is power is only a half-truth. We have come to see that knowledge *applied* is power. In this respect common-sense observation and the latest phase of the movement of philosophic thought are in accord. Pragmatism as set forth by Pierce, James, Dewey, and others, points out that our notions must be interpreted by tracing their respective consequences; that our beliefs are really rules for action. "To develop a thought's meaning," says James, "we need only determine what conduct it is fitted to produce, that conduct is for us its sole significance;" and "ideas become true just in so far as they help us to get into satisfactory relation with other parts of our experience."

Technical education, then, is not a thing apart from liberal education, but if rightly understood it is both liberal and technical, as it aims at such a development of the individual that will at the same time render him or her capable of self-support.

Four fundamental problems confront the educators of today in regard to the boys and girls under their care;

(1) To make them *good* (this they are when they serve God and their fellow-men).
(2) To make them *strong* (they are strong when they have attained self-mastery).
(3) To make them do *common things well* (for only a very small minority of men is privileged to deal with the uncommon, the so-called "great opportunities" of life).
(4) To make them realize "that man lives by admiration, faith, and hope."

Technical education fully recognizes these four demands thus conceived; it is primarily an educational problem, and only secondarily an engineering or an industrial or an economic problem. It will be one of the chief tasks of the new department to make clear this position of the educator. Education must not only consider the pupil's needs, but also furnish him with what the community will once require from him in the form of character, skill, knowledge, and efficiency.

The art of life consists chiefly in making clear distinctions between that which is fundamental in knowledge, character, and conduct, and that which is supplemental or merely incidental. In the same manner technical education, which at the present time is in an experimental state, as far as secondary schools are concerned, must in the near future be clearer in regard to its fundamental, supplemental, and incidental elements. For, said Rousseau, "The art of living is the trade we teach."

We are far yet in our country from that ripe completeness of system which we must admire in European school affairs, altho with greater flexibility we combine more individual freedom. But as the demands made upon graduates from technical schools will increase from year to year, and as the schools will aim at curricula more and more exacting upon the time and physical and mental strength of the students, it becomes the great, nay, let me say, sacred, duty of an association like ours to see to it that the individual is not sacrificed to the whole, but rather is given every opportunity of "realizing himself in the whole." This, I hold, is the chief task and the platform of the new department

of technical education. We must be on our guard against methods too rigid as well as against excessive individualism.

Technical education is bound to be the most favored phase of education of our nation, because its chief principle is that of self-activity, engaging the student's interest, compelling him to imitate patterns, devices, and methods, and to improve them, and thus, above all, teaching him at all times the significance and saving power of effort. For the man capable of sustained effort is the man who wins!

Looking over the entire field of technical and industrial education there emerge four distinct classes of problems worthy of serious consideration by the members of the new department:

(1) Educational (pedagogical) problems; i. e., problems of ends and aims and of methods; problems of the relation of the cultural elements to the technical subjects.

(2) Administrative problems; proper relations between the different schools, proper articulation of courses, training of teachers, etc.

(3) Social problems; relation of technical and industrial schools to the public and to other organizations; especially to the society for the promotion of engineering education, and to the society for the promotion of industrial education.

(4) Problems dealing with state support and control; i. e., considering the union of national, state, or municipal support and control with the activity of private associations. Technical and industrial education should become part of the public-school system. How soon this will be realized is a matter for the people to decide. But our department should insist that technical and industrial education should receive adequate support from the state and not be left to the efforts of charitable organizations and to private enterprise.

The scope of the department of technical education, therefore, embraces in its deliberations all phases of technical and industrial education, laying especial emphasis upon the development of secondary technical education; to infuse a spirit of culture, justice, and of altruism into the aims and methods of all such schools, and furthermore, insists upon the truth that all instruction must be educative, making for manhood, womanhood, and citizenship.

> The common problem, yours, mine, every one's,
> Is—not to fancy what were fair in life
> Provided it could be,—but, finding first
> What may be, then find how to make it fair
> Up to our means.—*Browning.*

THE PROPER ARTICULATION OF TECHNICAL EDUCATION WITHIN THE SYSTEM OF PUBLIC EDUCATION

ELLA FLAGG YOUNG, PRINCIPAL, CHICAGO NORMAL SCHOOL

This paper will not treat the subject of technical education as including both the sciences and the arts, nor will it present a scheme for the articulation in the public-school system of the manual arts, already established as they are in the upper grades of the grammar school and in the manual-training high school. It will consider the introductory use of the material and method that are fundamental in the sciences leading into engineering and technical analysis. To decide what the material is, is not always easy. Altho subject-matter

is divided into formal groups, two groups will sometimes have command of the same matter, and this is particularly true in the case of technology and the manual arts. For instance: in the schools below the institutes of technology, training in the graphic and manual arts is much nearer to training in architecture than it is to technical education, for while it is beyond doubt that modern architecture is based on an understanding of the principles underlying applied mechanics, strength of materials, and architectural engineering, it is equally certain that the appearance which is designed in accord with the principles of art, and the simple construction which is made under the leadings of the manual arts, will make the chief appeal to the naïve mind not yet trained to scientific appreciation. So much by way of explanation of the omission of any reference to architecture and the arts underlying its practice.

The subject of this paper does not necessarily require a full discussion of the questions of specialization in education early in life. It does, however, raise the problem, on the one hand, of making a positive effort to lay the foundations for a scientific attitude of mind, and to acquaint children of the practical type with the attractions of the study of applied science; and, on the other hand, of finding a place, in courses of study already crowded beyond reasonable limits, for enough technical instruction to be valuable. Until we dethrone the theory that keeps many groups of studies abreast in the upper grammar and high-school grades, our public schools will continue to send out recruits for the ranks of the unskilled and the idle. The preparatory schools of technical instruction are working out the problem satisfactorily, for a single class of students—those interested in things having a practical value in everyday life. The public school has a more complex problem with its several classes of boys and girls, all of whom are not interested in one group of studies. The problem is solvable, but this is not the time or the place to present the solution in full. Stated so briefly as to seem to beg the question, the solution lies in making, in the upper grammar grades, groups of subjects the cores about which different lines of work will center, and in using the capital already gained in other subjects as incidental to that to be acquired in the main group.

Whether this be called partial specialization or training in science, manual arts, or cultural studies, matters little. The discussion will from this point be restricted to technical instruction.

At the age of ten or eleven years, children should begin a substantial line of work in physics. Such work should have as its object the starting of children's interest and activity along the line of scientific inquiry. Instead of being an incidental subject taken up once or twice a week, it should be in the foreground daily. A prominent feature of the work should be experimentation with the lever, the wheel and axle, the pulley, using simple apparatus constructed by the children; but the experimentation would fail of its possibilities if it did not lead to a discovery of the mechanical advantage involved and to

a recognition of this advantage in machines of all sorts that fall within the observation of the children.

Another line of work—that leading to technical analysis—should be of a practical nature in connection with foods, plant fibers, and other useful plant products. In the following year this scientific study should be extended to experimental work on the effects of heat and cold on solids, liquids, and gases, and a recognition of the effects in a variety of things; a study of the gases of the atmosphere and of atmospheric pressure, involving hydraulic pressure, with a number of applications; a study of ventilation; practical work on the preservation of foods. In the eighth grade there should be a study of the electric battery, current electricity and its application in simple electric devices; a study of the eye, some work with lenses and the problem of lighting.

This program would give boys and girls between the ages of ten or eleven and fourteen or fifteen years a good experiential basis in physics, chemistry, and biology, and in the practical or industrial arts. The method of handling would, in large measure, limit the young minds to the mechanical point of view, or stimulate those penetrative and constructive tendencies that underlie one of the freest and richest modes of mental activity—the scientific imagination. If the method be the one commonly followed in elementary science-teaching, that of demonstration by the teacher, the capital that was gained in primary construction or handwork is not invested by children of average mental ability; motor images are not integrated in the experience; that experience is one-sided, sensory only. If the generalizations underlying that recognition of principles which is essential to scientific thinking are derived in considerable part from the leadings or hints of the demonstrator, there is for the members of the class slight or no deepening of the moments of experience. The impulse to handle, to shift, and to adjust the bar, the rope, or cord; the power to estimate the pressure which the fiber withstands, the amount of heat, the quality of the electric current, and to appraise the value of the experience that comes almost imperceptibly by way of the adjustments of the body—much of this impulse and this power is lost out of the work in science when the teacher adopts the method of demonstration. It may seem that too much time and space are here devoted to the educational phase of elementary science. I think not. If technical training is to be articulated in the elementary-school course, it must be jointed in, not tagged on.

In the high schools, the question of specialization is in a fair way to be settled satisfactorily. The commercial, the manual training, the academic high schools are all now recognized as necessary divisions of the system between the elementary school and the college. Within a period of less than forty years, the example of Washington University in establishing a manual-training high school has been followed by the cities and towns thruout this country. The commercial high school has not made such marked progress in public favor, due probably to the fact that its curriculum, like that of the academic high school, is based on bookwork instead of on the line of work which gives

play to the fondness of the practical type of mind for doing something with the hand. Public high schools for technical training are not numerous. The explanation of the difference in the spread of the technical training high-school idea, and that of manual training high-school idea, is not difficult to find: the technological institutions do a considerable amount of preparatory work, taking students directly from the elementary schools. The endorsement of these preparatory departments or academies by the parents of the pupils is an endorsement of the principle of partial specialization for children of the age of thirteen or fourteen years; the training in scientific lines is more positive because there are not so many groups of studies carried on simultaneously as in the academic high schools, altho the cultural studies are not omitted.

In the course of time the growth of cities with their steel and cement construction, the multiplication of inventions for bringing electricity into the service of man, the improvements in safer means of transportation, the analyses made necessary by legislation regarding foods, the advance in the quality and character of American dress materials and other stuffs, will bring more actively into public consciousness the desirability of education in civil, mechanical, and electrical engineering, and the relative values of foods, fibers, oils, ores, and other materials in the industrial arts. Whether the tendency to combine manual and technical training in one school will meet the needs of the situation, or whether the combination of academic and technical training under one administration will bring into harmonious relation two apparently opposed modes of education that yet have a method in common, no one can now foresee. One thing is evident: we have courses with the classics, or the modern languages, or shopwork, or trade and its balance as the central unit; we need that the high schools shall offer a course of training of which the core shall be science.

The scope of this paper does not permit a consideration of engineering and other departments of technology in the state universities. There is, however, in the system of public education, one school beyond the high school in which the problem of technical education presents itself in a somewhat different form from that in the institutions of technology. This is the normal college, limited as yet to the training of teachers for the elementary schools.

An overwhelming majority of the normal-college students are young women. Their training in science before entrance is derived largely from textbooks and work in high-school laboratories. Only a few are familiar on the practical side with machines, electricity, the influence of heat and light on foods, of chemical action on bacteria and molds. The custom in homes of relegating sewing and cooking to persons employed to do that work and of reserving the daughters for the demands of the school has cut off the embryonic teacher from that experience which is an essential in even the most elementary acquaintance with the nature side of life. Here the normal college has a double problem: (1) to study the material with which the student-teachers will make an environment stimulating the sixth, seventh, and eighth-grade children to experimentation, and to the first steps in scientific imagining and

reasoning; (2) to study the material for itself. For example: In the college the study of the roots and fleshy parts of plants is made from the standpoint of the plant; in the elementary school, they are studied as food products for man. The study of plant fibers is made, on the one hand, from the standpoint of plant tissue, and on the other, from that of their use to man. In physical science, the study of heat becomes in the college, with the laboratory work in fuels and combustion, a study of cause and effect; but in the grammar grades it is solely a consideration of the effects. The normal-college students want a battery for electrolysis and ionization, while the practice-school children want a battery to furnish an electric circuit thru an electro-magnet or a telegraph instrument.

If the public school is to aid in developing, in its great constituency, not only an interest in science, but a scientific spirit, there is no point in its whole system where highly equipped instructors are more needed than in the department of science in the normal college. Such instructors must be at once scientists and intelligent students of the interests and attitudes of mind in its different stages of progress. Not only must the laboratory work be thoro as such, but it must connect at all available points with everyday life, and in such a way as to awaken in the students an appreciation of law, of its harmonious working in the world of nature, and of its application in the inventions of man.

THE AGRICULTURAL COLLEGE AND ITS RELATIONSHIP TO THE SCHEME OF NATIONAL EDUCATION

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Little more than *ex-parte* statement can be expected from one whose thought and work have lain wholly on one side of a subject, and with such consciousness of lack of breadth I am impelled to explain that my subject is not of my choosing and if I should overexalt the importance of the agricultural college and its relationship to the scheme of national education, may I escape censure because I neither offered to write nor chose the subject of the writing? I simply go to Nineveh and cry as commanded.

And yet all who observe, even but casually or remotely, the progress of the world's effort at institutional education are aware that the various forms of applied knowledge commonly termed "practical education" are overwhelmingly popular; that governments and individuals give most freely for their promotion; that pupils flock to their dispensaries; and that statesmen of all civilized and being-civilized countries invoke them and count the degree of their popular attainment the measure of future national achievement. Probably every nation in the world, if called upon to propose a scheme of national education for a nation just about to be born, would lay out a curriculum of bird songs and flowers, mud pies and hammer strokes, wheels and levers, lathes and looms, dynamos and dynamite, atmospheric nitrate-making, and

advanced commercial methods which might obscure even the three R's of blessed memory. These older nations for themselves are curbed in their educational reforms by vested rights and ancestral beliefs and thus prevented from realizing popular ideals in education too rapidly, but one can easily see what revolutions might occur were these wholesome restraints removed.

With such a strong bent of the popular will toward the practical in education it is very clear that the next half-century will see great changes in educational methods and materials, if not in the very ideals of education. It, therefore, becomes worth while to endeavor to descry the relationship of what we have to that which we may attain; and this will be the line along which I shall pursue the agricultural college and its relationship to the scheme of national education.

In the first place, I must ask that the term agricultural college be considered a synonym of agricultural instruction. Those institutions which have "agricultural college" as a distinctive name do not comprise or contain the agricultural instruction of the United States. There is only one pure college of Agriculture in the United States—that of Massachusetts. The reports of the United States Commissioner of Education endeavor to segregate and classify higher institutions into two categories: (*a*) "universities, colleges, and technological schools;" (*b*) "agricultural and mechanical colleges;" but it has to be stated that institutions of the land-grant class are also included in the statistical tables of the former class, so that after all the grouping is not by institutions, but by subjects of instruction, so far, at least, as technological undertakings are concerned. The Commissioner's *Report* for 1905 enumerates the following:

Universities, colleges, and technical schools	619
Schools of technology	44
Agricultural and mechanical colleges	66

As already stated, these figures do not represent numerical segregation because the first group includes most of the second and third. They are not available for strict classification by subject either, because on this basis many more of the first group should reappear in the second or third group; for example, Harvard University with its Bussey Institution and Yale University with its Sheffield School are both omitted from the agricultural group, to which they are conspicuously entitled to admission. Many other higher institutions should also be claimed as agricultural. In discussing statistics of this sort Dr. True and Mr. Crosby in their pamphlet on *The American System of Agricultural Education* fitly remark: "Owing to the complicated organization of many of the institutions having courses in agriculture, ... it is impracticable to show by statistics with exactness the means and facilities for strictly agricultural education. The general statistics of the land-grant institutions may, however, serve to show with how great an enterprise, devoted chiefly to higher education along scientific lines and industrial lines, agriculture has been joined in permanent alliance, and to indicate in some measure how exten-

sive are the educational facilities at the command of the youth of the country who have sufficient intelligence, courage, and perseverance to follow out long and thoro courses of study in agriculture." The authors quoted evidently are apprehensive lest the statistics of the land-grant colleges should include too much for agriculture. I believe that, tho this may be true, they also exclude too much: but how excess and lack stand related I do not know.

It may be important, however, to "show with how great an enterprise agriculture has been joined in permanent alliance," by citing the progress in value of institutional property, income, teachers, and pupils of the sixty-six agricultural and mechanical colleges.

Year	Valuation	Revenue	Instructors	Students
1895	$51,274,546	$5,178,580	1,539	25,723
1900	59,325,119	6,431,038	2,013	39,505
1905	81,251,764	11,767,154	2,672	53,518

Surely "enterprise" is just the word for an effort which more than doubles its income and its opportunities in a decade. It would be pleasant to undertake analysis of these figures and to determine the causes operating strongly in the previous decades, which forced this wonderful development of an educational idea just at the hinging of the two centuries in which we are permitted to live and act. The limitation of this paper, however, precludes reference to causes and agencies. Two claims of significance must be presented:

First, the gains in property and income of the agricultural and mechanical colleges are far greater than their proportion of the gains of all institutions for higher education, viz.:

	1900	1905
Total property valuation of 619 universities and colleges and schools of technology	$391,230,784	$514,840,412
Income of the same institutions	33,259,612	41,775,101
Total property valuation of 66 agricultural and mechanical colleges	59,325,119	81,497,445
Income of the same institutions	6,431,038	11,659,955
By subtraction then (because the 619 institutions include the 66):		
Total value of property of 553 institutions	$331,905,172	$433,342,967
Income of same institutions	26,828,574	30,115,146

Therefore, while 553 other institutions made a property gain in five years of $101,437,795, 66 agricultural colleges gained $22,172,326; or 11 per cent. of the institutions made 24 per cent. of the gain. In income the contrast is far more striking. The increase of the income of 553 institutions was $3,286,572, while the increase of income of the 66 was $5,264,917; or 11 per cent. of the institutions made about 61 per cent. of the total enhancement of revenue of the whole list of universities, colleges, and technological schools of the United States. This indicates most clearly the popularity of these institutions and as their support comes from governments and not from individuals, it argues generosity springing from popular appreciation and expectation which far surpasses private munificence.

Second, it is significant also that the revenue of our agricultural colleges

is increasing at a more rapid rate than their property valuations. This is a working-capital; something to work *with*, not to wait for. It is, of course, admitted that a vast endowment would be a surety of the future, and, therefore, earnestly to be desired, but the fact that such large sums of money are voted to be immediately used is really a very clear token of popular confidence and anticipation of immediate benefit. The actual endowment of these institutions is the wealth and outlook of the nation and of the states, than which there is nothing more productive and secure.

The second division of the subject assigned to me is the "relationship of the agricultural college to the scheme of national education." Here, too, I must ask to speak of the subject of agriculture rather than of the college of agriculture as an institution. Fifty years ago the need of such institutions and their prospective relationships were popular subjects of discussion. Today we find them strongly established in every state and territory; generously supported, as figures already cited indicate; and doing such a commendable work in instruction and research that, in addition to other sources of increase, grants from the general government for both lines of effort have practically doubled within the last twenty years. They are thus deeply and permanently planted in the scheme of national education of the United States, and I confess I cannot discuss their relationship to such a scheme as tho they were apart from it or a thing still to be provided for it. The place of the higher institutions providing instruction in agriculture *within* the scheme of national education, and their duties and opportunities therein seem to me more fruitful subjects for contemplation.

It is, I believe, particularly fortunate that instruction in agriculture has developed almost entirely in institutions which were also devoted to the promotion of other branches of learning. The success of the Massachusetts Agricultural College, with a purely agricultural curriculum, cannot be cited as pointing in another direction, because in such a small commonwealth, so well provided with other outfits for higher education, it is in effect, tho not in organic act, a department of agriculture. Such a result could not have been attained in a larger or a newer state without agencies for higher education. The association of agriculture with mechanic arts "without excluding other scientific and classical studies" in the original Morrill act of 1862 was so wise in its conception and grand in its results that it is hard to fully measure its influence, not only upon the general educational advancement of the country, but upon the recognition of agriculture as the greatest of applied sciences and a treasure-house of the best pedagogical materials. It seems to me unquestionable that the isolation of agriculture and mechanic arts from other studies, as might have been accomplished if the Morrill act had not ordered "liberal and practical education of the industrial classes," would have postponed indefinitely the intellectual and industrial advancement which the great central and western regions of the country have now attained. For the association of agriculture with broad culture has given us leaders and teachers of depth

and grasp and its association with other technological studies and researches has produced experts and engineers for all the various undertakings which the development of agriculture on a great American scale required. The elevation of agriculture to its proper place in economics, and of the farmer himself to industrial self-consciousness, both of which advantages may now be claimed to have been fairly attained, are due to the scientific method and scientific achievements which have illumined and advanced policies and practices. Thousands of years of poetic and oratorical tributes to the nobility of agriculture accomplished less than a few decades of modern science and the wisdom of leading agriculture to the educational altar, where science awaited her approach, is grand to contemplate. "Wisdom is justified of her children."

And now agriculture has risen to a capacity for wider service, not only to herself but to humanity. In the scheme of enriched and widely distributed technical education which the present state of the world demands, agriculture holds the position of leadership, and all educational undertakings for advancement of manufactures, commerce, transportation, are largely related to it or conditioned upon it. This is true, first, because of the fundamental character of agriculture as a world-supporting industry. Agriculture underlies all industries and draws upon all sciences. There is no work of man so deep and so broad. Agriculture leads all technical education in our national scheme because no other branch of it has such high value in its instructional outfit nor such breadth in its geographical distribution. It is true that the number of pupils is still incommensurate with the provision made for them, but, judging by recent increase, this will soon be changed.

It is fortunate for the advancement of technical education generally, which both public and private generosity join in promoting, that agriculture is the sort of applied science and comprehensive art that it is. Its very nature constitutes it the best foundation for such advancement and the one upon which it is easiest to build. Its relation to many sciences and its universality as a pursuit of men are phases of its suitability for the educational issue which is now arising. There is reason to believe that a third term will henceforward be employed in describing educational branches which are in good standing. First came "letters," and for centuries it practically covered educational effort. A few decades ago "science," after a long struggle, arose to honorable recognition as educational material, and the formula was "letters and science." The third term which must ere long be added is "industry," and "letters, science, and industry" will be recognized as equally capable of pursuit toward an equally satisfactory and honorable educational end. Industry as a pedagogical quantity must, of course, be used in accordance with sound pedagogic principles and for true educational ends, which may, however, require increasing in number because an industrial point of view and purpose must be included as worth knowing, not only for use but for culture. The changes in present educational philosophies and curricula to include the item "industry," and all that pertains to it in thought and action, will not prove so great and appalling

as those which confronted "letters" when science claimed its seat. Nor is it apprehended that the actual teaching of "industry" will be any more crude or inadequate than were the beginnings of either letters or science. In fact enough has been done already to demonstrate that the elements of industry are as capable of presentation and demonstration to attain true ends of education as are the elementary facts and theories of letters or science, and because of our broader view of educational means and ends there is every reason to expect that the elements of industry will enter our lower schools and the inspiring researches and expositions of industrial materials, methods, relations, and point of view will occupy our higher institutions, in much less time and in a more satisfactory way than science has done, because the scientific method is now existent and forceful and will include all these quantities in its comprehensive grasp. When science began its educational career this method had to be developed and to win recognition.

Now if I may assume that this view is tenable, what are the duties of the agricultural colleges to the attainment of such ends? Several suggest themselves:

First, the agricultural college should demonstrate by living instances the value of an agricultural course for general educational ends. This can be done by good teaching, by effective research, by scholarly aspiration, and by breadth of view. It is important to show that a thoro agricultural course not only leads to vocational expertness and success, but is promotive of manhood and efficient citizenship. To this end the cultural elements as embodied in history, economics, languages, and literature should not be repressed or excluded. To be a man among men has never been sufficiently considered an agricultural attribute, but in the future it cannot be disregarded. Whatever it may be deemed wise to do in improving and advancing our agricultural colleges in technical lines, or how much pre-professional work may be provided for in the four years' course, it will not do to pursue these plans too far. Requirement of postgraduate study for professional qualification is a much lighter burden upon a man than condemnation to narrowness and isolation. It is essential, therefore, to maintain a good amount of general culture work in the agricultural course, not only for the sake of those who follow it, but that it may exert an influence in favor of a greater amount of liberalization in other technical courses with which it may be associated. Such courses are now too narrow and their product not symmetrically developed. A graduate should not only be a technical expert but a "gentleman and scholar," manifesting such quality by daily walk and conversation and not by his "locked, lettered and braw, brass collar" furnished on commencement day. Robert Burns's standard was not written for men.

Second, the agricultural element in higher institutions must join with other elements of applied science in the earnest maintenance and promotion of the pure-science elements. From such sources in the recent past have come to industry some of its most effective promoting forces. The very existence of an

applied science is obviously conditioned upon the discovery of truth to apply. It would be destructive to undertake to lift a stream above its source. As agriculture is above all industries the one to which the greatest number of sciences make contribution, it should be the disposition of those who are now, by the Adams act, especially endowed for "original researches or experiments bearing directly on the agricultural industry" to appreciate the loftiness of science for its own sake and to win students to proper contemplation of its point of view. The term science is becoming so common that there is quite a danger of an inadequate conception of its character and function.

Third, the foregoing are incidental; the crowning duty and opportunity of the agricultural colleges at the present time are to demonstrate the educational value of the so-called agricultural studies and to prepare teachers to render that value available. Here again it is fortunate that agriculture touches so many branches of natural science, and so many arts, at so many points of contact; it is not only fortunate but this nature of agriculture, as already intimated, is its essential qualification for leadership in the wide acceptance of technical subjects in educational work of all altitudes which is evidently imminent and such leadership imposes heavy duties and responsibilities.

It is not necessary now to contend that elementary science has pedagogic value in the lower schools; that is universally conceded. It should not be necessary either to contend that elementary science instruction is rendered concrete, rational, and successful by employing it to arouse and strengthen powers of accurate observation and correct reasoning in the child-mind, and that the scientific method is capable of reduction to such simple terms that a child can not only grasp its purpose, but is awakened and delighted with it. The duty of the agricultural college of each state to lead in the effort to render this branch of instruction spirited, correct in method, and effective, and to displace as fast as possible perfunctory work and to exclude fadism, seems clear. To this end it should directly assist the normal schools by preparation of special teachers and otherwise promoting their undertakings in these lines and should co-operate with the educational departments of institutions with which it may be a part to secure qualification of teachers for such work in primary and secondary schools. The assumption of a new line of work in this direction is provided for by the Nelson Amendment to the Agricultural Appropriation Act, approved March 4, 1907, which provides that the agricultural colleges may use a portion of the additional money accruing to them by this act, "for providing courses for the special preparation of instructors for teaching the elements of agriculture and the mechanic arts."

The situation with the colleges of agriculture with reference to this undertaking is carefully set forth in an excellent article in the *Experiment Station Record* for February, 1907, from which the following summary statement is taken:

A careful survey of the whole field reveals the fact that there is as yet no adequate provision for the preparation of teachers to take charge of agricultural courses in schools

of agriculture, normal schools, or other secondary schools, nor is there any definite attention or encouragement given to the professional training of instructors for the agricultural work in agricultural colleges. The normal schools as at present organized cannot do this higher work, nor can it be done by the great universities unless they maintain colleges of agriculture.

The duty of training teachers of agriculture for both colleges and secondary schools will, therefore, under present conditions, fall upon the agricultural colleges, and the needs of the time are so great as to make this duty almost imperative. Some of the larger agricultural colleges, especially those which are departments of universities, might well provide facilities and encouragement for fundamental research in the science of education in its relation to agricultural subjects, and all should make provision for training teachers of agriculture.

Thus is outlined a service which the agricultural colleges can clearly render. As elementary industrial subjects are rising in educational recognition and service, an opportunity for the colleges of agriculture in universities to come into closer co-operative connection with the departments of education and of the natural sciences and of commerce in joint efforts for school enrichment and improvement, should be enthusiastically accepted. It will strengthen the position of the agricultural colleges within their immediate environment and increase their influence with the public at large.

The relationship, then, of the colleges of agriculture "to the national scheme of education," as my subject phrases it, is that of leadership in the most important work of rendering the curricula of the lower schools more rational; their ma erials better suited to their environment and more effective in helping the youth to find himself in life-work and associations. These institutions more than any others, perhaps, are so placed that they can lay a firm hold upon science and higher branches of learning with one hand and upon the essentials of industrial efficiency and right living with the other. The association of these elements in individual character is the problem of the ages. It was descried by the ancients in the dawn of civilization; it will be solved in the millennium. Exceptional activity in the phase which it presents to this generation is certainly within the scope of the agricultural colleges.

TRADE SCHOOLS AND TRADE UNIONS

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The most remarkable thing about trade schools is their absence—which is almost complete. They exist mainly in the minds of those two or three million people, more or less, that represent the thinking portion of our census population of eighty odd millions. Of those two or three million, many have positive, and most of them partisan, views as to what a trade school ought to be. It is widely, if not generally, assumed that there is a natural and logical antagonism between trade schools and trade unions. This assumption, I hope to show, is both premature and pernicious. It is a first impression which takes on a different aspect upon closer scrutiny. At least it is capable of consider-

able qualification. It is based upon the single—and unwarranted—supposition that the graduates of such schools would tend to flood the labor market with superior mechanics according to trade-school enthusiasts, and with a host of educated but unpractical workmen, as conceived by those on the other extreme. It stands, above all other consideration, as an obstacle to the immediate establishment of secondary technical schools as an integral part of our public-school system. The demand for trade schools is admittedly imperative. Even if all were agreed upon the wisdom of establishing and promoting them, their practical administration would still be confronted with difficulties equal to any that have been contended with in the history of American education. Besides the usual problems of school administration, they must face also social and economic, as well as labor problems of a most perplexing sort. Of the few that have been attempted in this country, nearly all have either failed entirely or have been diverted from their original purpose, because this combination of educational, social, economic, and labor problems has been too complex for practical solution. Schools, like other things, are inclined to move along the line of least resistance. The wording of the bequests under which a number of our present so-called scientific institutions were founded indicates that they were intended to be schools of a more practical sort, if not actual trade schools, but they have slipped over to the literary and purely scientific side, avoiding the more difficult problems which their founders wanted to solve and which were not very different from those that we are trying to solve today.

It is needless at this time to point out that the ordinary manual-training high schools are not trade schools. They have specifically disavowed vocational aims, claiming to teach toolwork only for its educational and disciplinary value. What, then, and where are the trade schools? In the South there are some for negroes. There are a few for watchmakers; a few textile schools; a number of dressmaking schools—the last named frequently for the purpose of teaching special systems for drafting garments. In some of the reform schools trades are taught. There are institutions with trade-school features for dependent youths, such as the Williamson Free School of Mechanical Trades, and Girard College. There are a number of evening supplementary schools, some that have developed out of the work of manual-training high schools, and others that are maintained incidentally by religious, charitable, and philanthropic societies. Several large manufacturing concerns have organized their apprentice systems in a manner approximating actual schools. Some have been established by private, and some by organized effort in opposition to labor unions. Some are conducted on a strictly business basis for personal gain. The New York Trade School, the largest of all, admits young men from seventeen to twenty-five years of age, and teaches them trades during an attendance of three and four evenings a week, from 7 to 9:30, for one, one and one-half, and two years, the length of time being different for different trades. That is the list of American trade schools—all but complete. It will be observed

that they all deal with special classes of people or with special conditions—for negroes, for dependent and delinquent children, for the promotion of special industries, for local reasons, etc. These all have their place and value, especially as temporary expedients and as contributors of experience to the general good of the cause; but their importance is nevertheless a minor one in our consideration of the real trade-school problem that confronts this nation today. What are we going to do, not for the exceptional, but for the average, normal, free, white, American boy who wishes to learn a trade in conjunction with his general education and as a part of his preparation for life? Where are the institutions to which a boy may pass directly from the grammar school and in which he may learn a trade, or even the rudiments of a trade, together with such other things as he may need in his future career as an intelligent mechanic and a worthy citizen? That is the kind of trade school to be desired, and it is the establishment of schools of that sort that we have in mind when we speak of the trade-school problem—and I repeat what was said in the beginning, that the most remarkable thing about them is their absence. Yet they are the only kind worth making a national question of. A plea for them was entered a number of years ago by Elmer E. Brown, now United States commissionor of education, in an address before a woman's congress in San Francisco. He directed attention to the fact that we have law schools, medical schools, schools of pharmacy, commercial schools, and other secondary and higher technical schools, but none for the mechanical pursuits. In the expenditure of public money for educational purposes the future mechanic is entitled to equal opportunities for intelligent advancement, as compared with those preparing for professional and commercial careers. There are some who say that it would not be good policy to use public money in that way, but it is not easy to see how a line can be drawn between one class of vocational subjects and another.

It is asserted, and not often denied, that labor unions have deliberately restricted the number of apprentices in their respective trades, for obvious reasons. Reasoning from this, it is anticipated that they will be hostile to trade schools. I speak in the future tense because in the first place the present number of trade schools is so few, and for the more important reason that the attitude of labor unions, and especially of organized labor, on the question of trade schools has never been defined. In the *Seventeenth Annual Report* of the United States commissioner of labor (1902), which dealt exclusively with trade and technical education, an attempt was made to deal with that phase of the matter, but the result of extensive inquiries that were made at that time among labor representatives indicated that the subject of trade schools had not become a live topic among the trade unions. True, the question is in the air, but so far as the labor unions are concerned their position in the premises is one of suspense. Since the matter is thus in a speculative stage, let us treat it somewhat analytically and see whether there are not good reasons why labor interests will not and should not be unfriendly to trade schools.

In the first place, does anybody suppose that the street-car men, or the teamsters, or the garment-makers care how many boys learn bricklaying or blacksmithing, or any other trade? On the contrary, they claim for their own children the right to learn any trade they see fit to. If the bricklayers' union, or even the national brotherhood of bricklayers' unions, should object to a school of bricklaying, it seems reasonable to suppose that they must stand almost alone in their contention. Labor unions and labor unity are two very different things. There are certain fundamental principles upon which the different unions are strongly united, but the trade-school question will not be one of them. We must draw a line between trade unions and organized labor; the latter is not likely to take a stand in opposition to trade schools.

Let us probe still deeper and see whether it may not be that even the individual unions will find trade schools acceptable. Possibly such schools will prove to be a medium thru which the number of apprentices can be regulated in a way that will be agreeable to all concerned—an institution, in fact, in which labor and capital may sink many of their differences. Lacking direct evidence of observation, let us take a hypothetical case—one that will not come about in the near future, yet not entirely in the category of miracles, Suppose that, by some wise beneficence, there were trade schools enough scattered over the land, and that employers and employees were agreed that any boy who might wish to be employed in a mechanical occupation must first spend at least two years in an appropriate school. Would an arrangement of that sort tend to regulate the number of apprentices and would the results be beneficial to the boy, to his employer, and to the labor cause?

First, the business of instructing apprentices would be taken from the shoulders of the journeyman and placed in the hands of specialists, where it belongs. This proposition needs no extended discussion. All are agreed that modern conditions make it practically impossible for journeymen to devote any time worth while to teaching apprentices. The nation seems convinced that our only hope lies in the direction of suitable schools, where boys may receive the same careful and all-around instruction that they used to acquire before the decadence of the old-time apprentice system.

Second, every mechanic knows that a large proportion of the young men who begin apprenticeships fail to serve out the full four years. I have no precise statistics on this point, but it seems safe to say that not more than one-half complete their time. Those who fail have kept out an equal number of worthy young men who were entitled to the opportunity. If all were required to spend the first two years in a trade school, those unfit for mechanical vocations or for the trades they have chosen would be eliminated more effectively and with an avoidance of friction. The management of trade schools being my sole occupation, the only one I ever had, I venture to offer the trade unions a word of advice. If they wish to regulate—restrict, if they will—the number of apprentices, they will find a most effective and advantageous means of doing so by seeking to bring about some such arrangement as I have outlined,

requiring every apprentice to spend his first two years in a trade school. It would not be necessary to place a limit upon the number of schools or the number of boys admitted to them. The thing to control would be the output and not the input, and the output could be controlled by setting suitable standards. Let the labor interests have a hand in their management. Few will object to any standards they may see fit to set, howsoever high, for the purpose of weeding out the incompetent mechanics in favor of the intelligent, skillful, workman. There will be no complaint if the boy fails to meet high standards, provided he has had a fair opportunity. The opportunity is all that is demanded and the trade-school question will never be settled in the minds of the American people until that is accomplished and every boy shall have a fair chance. Under present conditions the labor unions are charged with restricting the number of apprentices by force and compulsion, and by the same means maintaining a maximum scale of wages and a minimum rate of work done. The plan that I have proposed would accomplish a proper restriction of numbers by putting a premium on skill and intelligence. It would accomplish all that the unions accomplish now, and incidentally it would disarm their critics.

Third, if it were reasonably certain that trade schools would lower standards of workmanship, trade unions would be justified in opposing them—and so would everybody. It is true that most mechanics regard with contempt, or at least with considerable doubt, the quality of instruction given in mechanical schools. Many of them think it is not possible to teach in a school anything substantial in the way of a trade. This lack of confidence is not unjustified. It is only too true that educators have not met, or even approximated, the view-point of the bread-winning masses, and the result has been a constant procession of boys who have prematurely dropped out of school. Even the manual-training schools have not leaned sufficiently to the practical side. Their motto, "we learn by doing," needs revision. We learn by doing, but we do not learn by half doing or by making believe doing. We do not know anything that we have not actually experienced. Now that the theory of formal discipline is going out of fashion, the manual-training high schools are showing more of a tendency to get into touch with the industrial world. Out of them I look for the future trade school to evolve, thru an improvement and extension of their work in a way that will win the confidence of the entire community. There is no logical reason why culture and useful knowledge should not be imparted at one and the same time.

Fourth, just as trade schools will not be allowed to lower standards of workmanship, so they are not likely to reduce wages. Four years spent in a school, earning nothing, will represent an investment on the part of trade-school graduates, and in the long run they could not afford to accept wages below the current standard.

So much for the prospective attitude of labor interests toward trade schools. On the other side, the thought that trade schools will assume, or

long maintain, a position hostile to trade unions can be disposed of in a single sentence. It is absurd to suppose that they will take a stand against their own organization, many of whom have joined—and many more will join—the unions. This is not a theory, but a practical condition that I have met in my daily work for a number of years. I would now find myself in an embarrassing position in my work, if it were not that the schools under my direction have always maintained a stand of neutrality on all labor questions.

To contend with all the difficulties confronting it, and to do, even approximately, what is expected of it, the future trade school must have the united support of all concerned, and to this end it must serve the interests of all—the boy, the calling to which he seeks admittance, the employer, the community at large, the state, and the nation. It must preserve harmonious relations everywhere. It must not be dominated by any single interest or by any set of interests. It must be absolutely neutral on the labor question, just as it must be absolutely unsectarian. Labor unions should be invited to take an active interest in them, even to the extent of appointing committees to examine into the work of the school and the qualifications of its graduates. Nothing less than actual contact will answer the purpose; put before the average union as an abstract question the matter of their attitude toward trade schools and there is no telling what fate it would meet at the hands of their lodgeroom orators. The two schools under my direction—the California School of Mechanical Arts and the Wilmerding School of Industrial Arts—have graduated a fairly large number of young men in mechanical trades and most of them have entered the unions. Heretofore it has been our policy to avoid agitation of the trade-school question among the unions, for two reasons. First, we have felt that we should stand on neutral ground and not take any action that would tend to influence our graduates one way or the other in the matter of union affiliation. Second, we preferred not to force the unions to premature action, having confidence that time would dispel any doubt or fear that might exist among them. Now, however, I believe the time is ripe to extend to them an invitation to join hands in this movement, and I now suggest that the National Educational Association extend such an invitation to the National Federation of Labor. This will not please some of the employers, of course, but let me tell you that competition and other circumstances will prevent employers, as a class, from being overgenerous in their immediate relation to trade schools, notwithstanding their present willingness to promote the cause. This does not refer to those bodies of patriotic and unselfish men who have taken the initiative in recent movements in favor of industrial education, but to the average employer who may be counted on to rate trade-school graduates as low as he can. With both employer and employee actively connected with them, it is not unreasonable to look forward to trade schools as a medium for correcting many existing evils and for adjusting many existing contentions between labor and capital, whereas, with either side predominating in their management, they will tend only to widen the breach. The trade school that is conceived

in a spirit of antagonism cannot survive; it must not be an institution in which labor and capital may perpetuate their differences.

Besides the necessity of safeguarding these important features, there are other attributes that trade schools must possess and other dangers that they must avoid. They must not break too harshly with established conditions in the educational field; they must borrow the best elements from our own established schools and from those of other countries, and must not neglect the accrued experience of past centuries. They need courage to cut loose from wornout traditions, and yet a middle course will prove a safe one.

They must be well articulated with the grammar school—altho there follows from this as a corollary the most serious consideration of all. Under our present scheme of eight elementary grades a child, beginning at the age of six should finish at fourteen, and usually does finish at about fifteen. Entering a trade school at fifteen he should graduate at nineteen, and many would be only seventeen or eighteen, which is far too young for their acceptance as full journeymen. This phase of the situation is admirably handled in the report of the Massachusetts Commission of Industrial and Technical Education, which appeared a year or so ago and which has been so widely and so favorably noticed. The years from fourteen to eighteen are therein called the "wasted years" in the lives of most children, because during those years they are drifting about in fruitless and often degrading employments, which are the only occupations open to them until they become old enough to begin apprenticeships in the higher classes of trades. The New York Trade School, as I have mentioned admits young men between the ages of seventeen and twenty-five only. That, you see, is clearly a matter of expedience, and does not go far toward solving the real problem. The commonwealth of Massachusetts having put its finger on the sore spot and having set out to find a remedy, the outlook is far brighter today than ever before.

In fact, this movement in Massachusetts is only one indication of what seems to be a general awakening thruout the land. A few months ago there was organized a National Society for the Promotion of Industrial Education. It has representatives present at this meeting of the National Educational Association for the purpose of promoting the general movement and to urge the next step in their program, which is the organization of state committees thruout the United States. Another movement having an important bearing on this subject is the Social Education Congress, recently organized in Boston. That association also has large plans and promises much, if one may judge from the high character of the papers presented at the initial meeting. The national importance of developing industrial education beyond its present status was also urged by President Roosevelt in his last message to Congress.

The time is ripe and there is a splendid opportunity for this newborn department of the National Educational Association to take up this work as an important part of its province. You asked me, Mr. Chairman, to come here prepared to offer suggestions concerning the function to be assumed by

this department. I would suggest that, among other things, we take it upon ourselves to serve as a clearing-house for the National Society for the Promotion of Industrial Education, for the Social Education Congress, for associations of manufacturers, for the National Federation and other organizations of labor, and for all other interests and elements that will patronize us—not omitting our chief concern, the grand army of American boys and girls.

TECHNICAL EDUCATION IN HIGH SCHOOLS AND COLLEGES

ARTHUR H. CHAMBERLAIN, ACTING PRESIDENT OF THROOP POLYTECHNIC INSTITUTE, PASADENA, CAL.

There are many qualities essential to success and to the mental and moral growth of the individual and of the state. Honesty, responsibility, simplicity, judgment, leadership—these attributes are at the very foundation of our welfare. But the culmination of all the virtues, the final aim of the sum total of our faith and our endeavor is the doctrine of service. In the bustling, money-making, ambition-loving, progressive life of this twentieth century, when the conflict for place and for power takes the not always imaginative form of a hand-to-hand encounter; when money too often counts for more than the man and selfishness and greed seem to overshadow the finer qualities of human nature—now it is that the value of service stands out clear and distinct.

In the last analysis the whole civic state is built upon the gospel of service; all moral and social virtues, all standards of right living, all ideals of life, and all rules of conduct bear a close relation to and find their roots in the spirit of true service. It is the beginning and the end. It is the rendering of true service that makes possible the establishment of moral and educational institutions and it is the necessity for service that makes imperative the need everywhere for organizations that ennoble and uplift.

Service is another word for life. It is the spirit that prompts us to aid our friend, our brother, our neighbor; to seek out those who have fewer opportunities and are more unfortunate than ourselves and lend assistance where it is most needed. To be of service to our fellows we must be not thinkers and dreamers only, we must be doers as well. It is not enough to be willing to do, to help, to assist; we must actually take hold, and work, and accomplish results. As Edward Everett Hale says, "Look up, and not down; look forward and not back; look out, and not in; and lend a hand."

Education is the process of training for service. Whether we contend that education should train for citizenship or for life; whether it is designed to fit for participation in the world's activities or in life itself; whether it should aid in the unfolding of the human powers or furnish that which shall make possible a complete development; whatever we may determine the purpose of education to be, we are lost in the vagaries of terminology and mean only a training for service.

The high school and college offer large opportunity for such training and

especially is this true in technical education, owing to its broad and intensive character and its humanistic tendency.

In this discussion the term technical education implies a wider field than that usually considered under the head of manual training. In the elementary school we speak of occupation, motor activity, constructive work, handwork. To designate work of a more advanced character we speak of manual training or industrial training. The term technical education carries with it not only the idea of processes, of something planned and constructed, but it implies an advance over the former both in kind and quality. It signifies also a more definite aim; a specific rather than a general tendency.

But after all the whole question is one of relative values. Many find it too easy to insist that this or that form of work carried on in a particular class or grade of school is the only kind of education that will bring results. Let me illustrate the danger of this narrow tendency.

At a recent education convention an able paper touching the possible eliminations from the curricula of the schools had been presented and able men and women had been chosen to lead the discussion. The first speaker agreed with the general tenor of the paper; he would eliminate much of the work as now taken up but there was one school subject that must not be given a shorter time allowance on the program. In fact he favored an increase of time in this particular subject, and as he proceeded in his argument we learned he was a specialist in the line he sought to magnify. Another speaker voiced views of a similar character regarding the curriculum in general, but held stoutly for an increased time allowance in one subject, this finally proving to be the one he was teaching. Still others followed, all specialists, and fearful lest too little time be devoted to their individual lines of work while ignoring the claims of allied subjects.

In the same way the elementary school is considered by this or that individual to be of first importance. Commercial education is, to the mind of one, the imperative need of the hour, while to another an agricultural, a classical, or a technical training is the thing to be desired. Let it be understood that the writer attempts to give full value to all forms and grades of education even while advocating an extension and a complete recognition of the value of technical work in the college and the high school.

It is the contention of many that we should have no so-called manual-training or technical high school, or a classical or English high school, *per se*. Every high school should be all of these in one; in other words every completely equipped high school should offer courses in technical training as well as in Greek and stenography. The one subject need not necessarily be made compulsory more than the other, but all students should have open to them the possibilities of instruction in manual and technical lines and at no other expense than that incident upon attendance at a public institution of learning.

It will at once be observed that those who advocate this plan favor what may be called the educational phase of the question. If all high schools are

to offer instruction in technical lines and all students are eligible to participate in the courses offered, then it follows that the special or trade element could here have no place. No subject taken as an elective, or as one of the several elements in a regular four-year course in high school, can be sufficiently analyzed and mastered as produce specialists.

Again there are those who hold that schools of secondary grade should be specific rather than general in character. The assumption is that having completed his eighth school year, the student knows something of his own capabilities, his likes and dislikes, and is thus qualified to estimate and judge for himself. His parents and teachers are also able to advise him in making a choice. This being the case, he should, if his inclinations so direct, enter at once a special school in which technical education is the chief feature of the course.

While I am in favor of early specialization, when in a given instance a student shows marked ability in and a desire to concentrate upon a subject, I can hardly sanction the plan just outlined. If carried out, the secondary institution would be, in the last analysis, a trade school.

There is no doubt in my mind that every high school should offer technical instruction, including domestic science, domestic art, applied arts, drawing, and household economy for girls; agriculture, drawing, work in wood and iron at the bench, lathe, and forge for boys. But the success of such courses if introduced into the schools, depends upon the kind and character of work offered and of the instruction given; and while much good has been accomplished thus far, the results achieved in many localities are not such as to convince the keen, analytic man of affairs that technical education in the high school has been reduced to an entirely satisfactory basis.

The people must be convinced of the value of the instruction offered in technical lines. Such instruction must appeal to them from the utilitarian side. While the trade school is not needed in this connection, nor is trade instruction demanded, the work should always be eminently practical, that is, useful. "We should never work contrary to trade practice," says one who has studied the question thoroly. Whatever tool is used should be a tool the tradesman would use for a like purpose. Special or miniature tools should have no place. The method of procedure should also be that of the man of the trade, while the material upon which the students work should be such as an expert would select in the world of activity. In other words, the students should, by reason of the technical training carried on at school, have nothing to unlearn when they face the searchlight of actual living.

In a study of literature in the school only the best is chosen, that which in style, composition, force, and power to uplift and instruct is pre-eminently superior. That which in mature years will appeal to the individual as literature is studied as such in the school. So it should be with the industrial and technical forms of work, its tools, its methods, its materials, its output. A process is not necessarily lacking in educational value simply because it possesses commercial worth and is made after the shop pattern or is given the

handling of the craftsman. Depend upon it, those who work, day by day, at a given process or along a given industrial or technical line are, broadly speaking, using the most economical methods, the most desirable tools, the most satisfactory materials. To be sure the educational principle should be applied in the school but always in the light of the practice of the tradesman.

In dealing with the problem of technical training in high schools it is not safe to attempt to educate the taxpayers to the value of making things that have no utility and such as possess no beauty, no intrinsic worth. We must proceed rather from the standpoint of values as held by the community members. There are schools where the course of study in technical lines is on such a scientific and pedagogic basis and so educational in its application, that should a student bring from home a piece of furniture to be repaired, he will be allowed this privilege only as he completes successfully a definite exercise or article in a prescribed series. The procedure should be directly reversed. The mending of a window sash, the rehanging of a door, the doweling of an umbrella handle, the gluing of a picture frame, the hinging of a chest cover, the construction for a definite purpose of a table, tabourette, chair, stool, bench, cupboard, cabinet, bookcase—this is typical of the work in tool construction in wood that should have first place in the high school and prescribed courses of study should be brought forward only in emergency cases.

But what has been said applies chiefly to the work of the beginner. In the more advanced years of the high school when metal work, at the forge and the lathe is to be taken up, and particularly when tool and machine construction form the technical processes involved, less latitude may be allowed; but even here each environment demands a treatment and interpretation distinctly different from that given elsewhere, and in any event the natural aptitude and desire of the student cannot be ignored.

The question may here be raised as to where competent teachers are to be found. One school board makes the bald statement that the less the teacher knows of the subject the better teacher he is, for under such conditions the students do their own work. The expert is too prone to rob the boy of the benefits he should receive by himself performing the difficult details, the excuse for so doing being that more ground is thus covered and a better showing made. Whether or not the argument of this school board is germane, in technical training as elsewhere in education, common sense is the first essential.

The time is fitting for a word on technical training for girls in the high school. Many mothers have small favor for domestic economy in the school. This, they claim, can be learned at home. Here again popular sentiment must be aroused. While the processes must proceed along educational lines, the industrial spirit or commercial handling must be present. If the mothers are to be educated to the appreciation of certain economic and scientific points of view it must be by beginning with processes they understand, with methods they can appreciate, and with equipment and utensils with which they are familiar. If it be demonstrated to them that the tools they possess can be

used to better advantage, they will not be long in acquiring new methods. Much can be taught at home but it is unnecessary to suggest here why industrial and technical occupations, including sewing, cooking, and allied subjects cannot be fully or adequately thus taught. Such economic and sociological questions are involved as seem to be a barrier to home teaching altho the value of home instruction is unquestioned.

Work for girls should include not only sewing and cooking in their narrow aspects, but a study of the chemistry of foods, simple analyses, marketing in its economic aspects, heat, light, ventilation, house sanitation, plumbing and disinfectants; proper methods of sweeping, dusting, laundry, and care of the home; hygiene, nursing, and emergency aid; a knowledge of accounts and business forms; domestic architecture and planning of the house and grounds; gardening and tree and floral culture where possible, and much more that in the Swiss schools is included under the term "female handwork," and which is both practical and cultural.

If technical education is to develop and be a general factor in the educational life of the country, such education must justify itself and stand out as being eminently superior. There must be no question as to the seriousness, the intensity, the real worth of such work. In institutions offering education of a technical character, the subjects must be pre-eminently of an educational and practical value and the curriculum, the methods, the teachers, the work accomplished must be such as to command the attention of those desiring such education; the institution must be in every way so attractive that boys and girls who might otherwise enter the field of practical life at an early age, will be drawn to and induced to spend here three or four of the best years of their lives, not in learning about living or doing merely, but in living and doing; not swept thru the channels of reformation and change, but directed over a self-constructed highway of formation and growth.

A distinct effort must be made to bring together the various school subjects so as to form a more perfect union and an organized whole. Harmony must exist between the various studies; the several lines must so work together as to avoid needless duplication, while at the same time principles learned in one subject shall find application elsewhere. In so doing much time can be saved that is now entirely wasted. The necessity for this change is particularly noticeable at this time owing to the serious overcrowded condition of the curriculum.

As to organization, the school with its many interests and activities should be a unit. While tending toward the individual development of each student, one central, all-embracing policy must animate thruout, and all work must be subordinate to and flow in to enrich this central policy. No curriculum alone, however good it may be, will suffice to bring desired results. There must be a definite, direct, clean-cut motive at the center. The policy then must be understood by all and the school's organization such as to permit the carrying out of such policy.

Just what lines of technical training should be offered in a secondary school is a question of considerable importance. Tradition and practice have marked out a fairly well-defined road in shop practice for boys; in general, one year of wood construction, one of iron, and two of pattern- and machine-work. For those students who are not to put their knowledge of machinery to immediate account, this second year of machine-shop may be omitted, and a general course be pursued. This might be an applied-art course, demanding a knowledge of constructive design, and of wood and iron processes, and would comprehend work in any media including copper, brass, enameling, glass, leather, etc. Unless a student was to enter a technical college later where an extended knowledge of machine construction would be essential, such a general course would prove of great value. In the technical high school, too, the student may be allowed to specialize to the extent of taking two years of work in a given shop—turning in wood, cabinet-making, pattern-making, forging, and the like.

Time will permit of no adequate discussion of the work of the technical college. One thing is certain. While the opportunities and field for such institutions is becoming vastly greater and broader and the need of technically trained men more and more apparent, the fact is also clear that the training in such schools is too narrow and restricted. This is but the natural revolt against the old scholasticism. From a college training in letters merely, the tendency has been too strongly marked in the opposite direction, and pure science and technique in the abstract has characterized the technical courses. Then, too, just as the general high school should offer technical training to all who seek entrance, so should the colleges everywhere offer certain technological courses to balance and complete their curricula.

That the training given in the technical college be not over-narrow and restricted, to the sciences, mathematics, drawing, and shopwork must be added such of the humanities as experience may determine essential. The graduate of an engineering college or of a school of technology frequently finds himself in possession of sufficient facts connected with his profession, but with a knowledge of the language he uses so inadequate as to seriously handicap him in pursuing his vocation. The business side of his education he also finds, when too late, has been sadly neglected. To adequately express oneself and to perfectly understand all common business forms, such as papers of conveyance, deeds, bills of lading, etc., are matters, to be ignorant of which is absolutely inexcusable. Details of common law, training in questions of national and political economy and of general history are fundamentally essential. A study of the technical college courses will show that everywhere, and especially in Germany, a strong reaction is taking place, and the feeling is growing, that a well-trained engineer must be a man broad in his sympathies and possessing a knowledge of people and things that shall give him place anywhere and always. The Emperor William, on the occasion of the Charlottenburg celebration, used these words to indicate what was to

his mind the connection between the technical high school and the technical college:

> In the relation of the technical high schools to the other highest educational establishments, there is no opposition of interests, and no other competition than this, that each of them and every member of them for his own part, should do full justice to the claims of life and science, mindful of the words of Goethe:
>
> "Neither be like the other, but each be like to the highest! How is this to be done? Let each be complete in itself."

We close where we began. In the technical college as elsewhere the ultimate purpose of the training offered is for service. But the service rendered must be given, not with the hope of material gain only or of selfish reward. Recent events in our country have shown us most clearly a great lack in our present social attitude. We have men—trained specialists, professional, technical, and commercial, and we need more of them, but if we are to meet, successfully the present state of social unrest and solve the economic and political problems that confront us, they must be men of broad social vision, men who realize the needs of society and who are willing to assume to the full their individual and collective responsibilities. The technical college must do its part by broadening its purely technical character in the lines which I have attempted to indicate.

But the proper results in technical education cannot be attained without work, and there will be much opposition. We must be leaders as well as learners and followers. We must be open-minded always, definite in our purposes, and willing to stand alone if in the right. What Burke says of Parliament finds its application with us in America, whether it be in politics, in the religious world, or in education:

> Their one proper concern is the interest of the whole body politic, and the true democratic representative is not the cringing, fawning tool of the caucus or the mob, but he who, rising to the full stature of political manhood, does not take orders but offers guidance.

CONFERENCE OF NATIONAL COMMITTEE ON AGRICULTURAL EDUCATION

SECRETARY'S MINUTES

WEDNESDAY, 2:30 P. M., JULY 10, 1907

The conference under the direction of the National Committee on Agricultural Education met Wednesday afternoon, July 10, in the State Normal School, Los Angeles.

E. C. Bishop, deputy state superintendent of Nebraska, was chosen leader and E. E. Balcomb of Southwestern Normal School, Weatherford, Okla., secretary.

"The Work of the National Government in Extending Agricultural Education through the Public Schools" was the subject of an address by Dick J. Crosby, expert in agricultural education, Department of Agriculture, Washington, D. C.

A paper on "What Has Been Done and Is Being Done by Normal Schools and Agricultural Schools for Popular Education in Agriculture" was read by E. E. Balcomb, department of agriculture, State Normal School, Weatherford, Okla.

"The Work in Agriculture as Conducted by the State and County Organizations of Young People in Club Contests" was considered in an address by E. C. Bishop, deputy state superintendent of public instruction, Lincoln, Neb. A discussion followed.

By reference to the minutes of a meeting of the Board of Directors held July 8, 1907 (see pp. 44, 45), it will be seen that in answer to a petition, the establishment of a Department of Rural and Agricultural Education was authorized. It is understood that the petitioners will organize at a later date and will present a program at the next annual convention.

E. E. BALCOMB, *Secretary.*

THE WORK OF THE NATIONAL GOVERNMENT IN EXTENDING AGRICULTURAL EDUCATION THRU THE PUBLIC SCHOOLS

DICK J. CROSBY, EXPERT IN AGRICULTURAL EDUCATION, UNITED STATES OFFICE OF EXPERIMENT STATIONS, WASHINGTON, D. C.

The work of the national government in aid of agricultural education may be outlined under two main heads: (1) The giving of funds to the different states and territories to support and encourage agricultural education and research; (2) The giving of expert assistance to educators, educational institutions, and the officials of education, by the different executive departments of the government.

FINANCIAL AID FROM THE FEDERAL GOVERNMENT

The government is now giving annually to the states and territories more than $2,000,000 for the support of institutions in which agricultural education and research are the leading features, and legislation recently enacted provides for the gradual increase of this amount until a total of $3,840,000 is reached. Incidentally this recent legislation also provides for the use of a part of the

federal appropriation in the preparation of teachers of agriculture. In addition, these same institutions receive a total of $760,000 annually from funds derived from the federal land-grant of 1862. In a few years, then, the states will be getting from the federal government over four and one half million dollars annually, which must be used largely for education and research in agriculture.

Relatively this is not a large sum (nearly as much is spent for a single battleship), but it has had a wonderful influence in stimulating local activity in organizing agricultural education, and local taxation in support of agricultural education. It is only fifty years since the first agricultural college opened its doors, but there are now sixty-five state educational institutions which receive aid from the federal government, and sixty-three of these are giving instructions in agriculture. They receive two million dollars from the federal government and more than twelve and one-half millions from the states and other local sources. The aggregate value of their equipment and endowment is estimated at eighty-four million dollars.

These institutions are now training over nine thousand students to a better appreciation of the problems of the farm and the farm home, and directly or indirectly, they are reaching over a million people annually thru farmers' institutes, and nobody knows how many thru agricultural high schools and the teaching of agriculture, nature-study, and school gardening in public and private schools.

Suffice it to say that the agricultural college has been the parent, the inspiration, the wise counsellor, and the guide for the whole movement in education which finds expression in the study of common things for the sake of knowing them better and appreciating their importance in the everyday problems of life. And the federal government has had no small share in the establishment and development of the agricultural colleges.

EXPERT ASSISTANCE FROM FEDERAL EXECUTIVE DEPARTMENTS

Several of the federal executive departments publish bulletins, maps, charts, and other material used more or less in the public schools, but only two of these, the Department of the Interior and the Department of Agriculture, are directly charged with duties relating to the education of our youth. The Department of the Interior thru its Indian service is charged with the management of Indian schools and has made provision for the teaching of elementary agriculture in these schools; thru its Bureau of Education it is charged with the direct management of schools in Alaska and given certain duties in connection with all colleges and schools receiving public funds. The Department of Agriculture thru its office of experiment stations is given the task of promoting more effective instruction in agriculture thru farmers' institutes and agricultural schools.

The functions of both these federal bureaus are in the main advisory. They may collect, collate, publish, and disseminate information concerning education in this country and abroad, but there their duties practically end.

They may recommend certain changes, but they have no way of enforcing their recommendations. They may co-operate with educational institutions and officials in the different states but not coerce them. They are intended to be co-ordinating agencies—the clearing houses of education.

THE BUREAU OF EDUCATION

The work of the Bureau of Education touches all phases of education—supervision, methods, relative values; all subjects —the humanities, mathematics, sciences, and arts—among them agriculture. One who is familiar with the meager funds given this important bureau would not expect it to give much special attention to this recent subject, agriculture, but an examination of the literature emanating from this source will show a number of important and helpful publications on nature-study, school gardens, and other phases of the subject. This bureau is now getting out a bulletin on agricultural education which will be an important contribution to our knowledge of this subject. The Commissioner of Education, in a recent address at the celebration of the fiftieth anniversary of the opening of the first agricultural college in the United States, expressed a warm and hopeful interest in agricultural education, and I am sure that teachers of agriculture who write to him will be given every assistance he is able to extend.

THE UNITED STATES DEPARTMENT OF AGRICULTURE

In order that what I shall say regarding the work of the United States Department of Agriculture may bear the stamp of official approval, allow me to quote very briefly from the President's message at the opening of the second session of the Fifty-ninth Congress:

> The Department of Agriculture has broken new ground in many directions, and year by year it finds how it can improve its methods and develop fresh usefulness. Its constant effort is to give the governmental assistance in the most effective way; that is, thru associations of farmers rather than to or thru individual farmers. It is also striving to co-ordinate its work with the agricultural departments of the several states, and so far as its own work is educational, to co-ordinate it with the work of other educational authorities. Agricultural education is necessarily based upon general education, but our agricultural educational institutions are wisely specializing themselves, making their courses relate to the actual teaching of the agricultural and kindred sciences to young country people or young city people who wish to live in the country.

While the office of experiment stations is the agency thru which the United States Department of Agriculture deals with matters concerning agricultural education, I wish to defer speaking particularly of the work of this office until after I have mentioned briefly the efforts of other bureaus of the department to promote the teaching of agriculture in public schools.

The Weather Bureau has representatives in all parts of the country who are doing much to instruct the people concerning meteorological conditions in relation to agriculture. Last year these men gave regular courses of instruction in fourteen universities, colleges, and scientific schools and at least forty other officials of the bureau gave occasional lectures or addresses. The

bureau furnishes the daily weather chart to many schools to be used for educational purposes, and sends out also a leaflet to explain the chart.

For a number of years the Bureau of Plant Industry has been co-operating with the normal schools in the City of Washington in conducting school-garden experiments to determine the value of such work and discover the best methods of conducting it. The bureau is now furnishing two greenhouses, two acres of land divided into plats for two hundred and fifty children and the necessary seeds, manure, and teamwork for carrying on this work. The normal schools provide the teachers and pupils. As a result of these experiments nearly every school in the District of Columbia has undertaken garden-work or schoolground improvement. Congress has appropriated a small amount for teachers of gardening, making it possible to start four other school-garden centers, and the children of Washington bought in the spring of 1907 over 160,000 packets of seeds for home gardens. A report on this work and on similar work in other cities is published in Bulletin 160, of the office of experiment stations entitled *School Gardens*. The Bureau of Plant Industry has also prepared and published farmers' bulletins on *School Gardens*, *Annual Flowering Plants*, *The Decoration of Home Grounds*, and the *Propagation of Plants*, which are much used in public schools.

During 1906–7, the bureau corresponded with over twelve thousand schools on school gardens and schoolground improvement and distributed about seventy-five thousand sets of seeds to be used in this work.

The forest service is conducting an energetic propaganda to impress upon school officials and teachers the importance of giving some instruction in forestry in the public schools. This it is doing thru publications, thru addresses and lectures, thru the press, and thru correspondence. It has within six months sent publications to over one hundred thousand individual public-school teachers. It has made addresses before teachers' institutes, normals, and other gatherings of teachers in eastern, southern, and middle-west states. It has prepared maps for publishers, suggested text-matter for schoolbooks, and begun to formulate exercises and methods for teachers of nature-study. It has furnished local examples in many regions of proper methods of planting forest trees and caring for wood lots, thru the plans which it has prepared and put into operation on the lands of private owners. It has identified many hundreds of forest specimens submitted by school-teachers, loaned collections of lantern slides, loaned, sold, and given away forest photographs, and met a large and growing demand for miscellaneous information thru correspondence. It sent out during the month of April of the present year over one hundred and seventy thousand copies of a circular for the use of teachers in connection with Arbor Day. Certain of its publications are used widely for supplementary reading, and to some extent as textbooks. It makes special effort to respond to requests for publications which are useful for school libraries. All of this work is aiding powerfully, tho for the most part indirectly, to bring education in forestry as a branch of agriculture into the public schools.

Several features of the work of the Bureau of Chemistry find a way into the public schools, especially those relating to the adulteration of foods and other agricultural products and to methods of analysis. The schools in which domestic science is taught make frequent use of the publications of this bureau.

The officers of the Bureau of Soils are in close sympathy with the movement for the extension of agricultural education. They have furnished lecturers for teachers' institutes, soil maps and reports for use in public schools, and soil samples for use in agricultural colleges. They have made special soil maps of school farms, notably in Alabama and Georgia, and have aided, are now aiding, these schools in planning and carrying out soil-improvement experiments.

The Bureau of Statistics under plans suggested by Hon. Willet M. Hays, Assistant Secretary of Agriculture is making a careful statistical study of the organization, cost, and effectiveness of consolidated rural schools, especially in relation to the introduction of work in agriculture and home economics into such schools.

The division of publications is the agency of the Department of Agriculture in charge of the printing and distributing of its publications. The editor is quite partial to teachers and recognizes the fact that the dissemination of department publications thru the public schools is one of the very best uses that can be made of them, but he solemnly charged me not to boom the distribution of department publications. The printing fund is already inadequate to meet the large demand from educational institutions, teachers, and students, and any increase in such distribution would necessitate a large increase in the fund for printing. If the friends of education would prevail upon Congress to deal more liberally with the division of publications they might expect a cordial response in the way of a freer distribution of department publications.

THE OFFICE OF EXPERIMENT STATIONS

Director A. C. True, of the office of experiment stations, is deeply interested in all phases of agricultural education, and he is quite generally recognized as a leader in this field. He has been twice called to the deanship of the Graduate School of Agriculture and will act in the same capacity at the third session of that school at Cornell University next summer. For many years he has been chairman of a standing committee on Instruction in Agriculture, of the Association of Agricultural Colleges and Experiment Stations. In this capacity he has had much to do with the formulation of courses in agriculture for colleges and schools of different grades, and this work has had a wide influence in the creditable beginning that has been made to reduce the teaching of agriculture to pedagogical form. Under the leadership of Director True the work of the office of experiment stations in relation to agricultural education has become so broad and the demands upon the office on the part of the educators have become so varied that it has been found necessary

to organize the work under two sections, one dealing with the agricultural colleges and schools and the other with farmers' institutes and other forms of extension work in agriculture. I shall speak only of the work in relation to colleges and schools which may be conveniently grouped under four heads.

(1) The collection and publication of information regarding the progress of agricultural education at home and abroad: This includes the annual statistics and organization lists of agricultural colleges and experiment stations; lists of schools in which agriculture is taught, suggestive courses in agriculture for schools of different grades; laboratory exercises in agriculture for colleges, secondary schools, and elementary schools; popular articles describing features of instruction in agriculture in successful schools; lists of textbooks and works of reference in agriculture, and reviews of the literature of this subject in the official journal of the office; the *Experiment Station Record*.

(2) Studies of different grades of American and foreign schools in which agriculture is taught: This involves visits to many of these schools, and a study of their literature with a view of giving wide publicity to the commendable features of their work. This branch of our work has made it necessary to examine over one thousand foreign publications during the past year. In this connection we maintain a card index containing over three thousand six hundred cards relating to institutions in which agriculture is taught, twelve hundred of these referring to American colleges and schools.

(3) Work in co-operation with the Association of American Agricultural Colleges and Experiment Stations: This is primarily committee work and correspondence relating to courses in agriculture. It is lacking in spectacular features but has nevertheless an important bearing on the extension of agricultural education in public schools. A bulletin from the committee on *Exercises in Elementary Agriculture* came from the press May 24, and the entire edition of seven thousand copies is now exhausted. It will be reprinted and later will be supplemented with circulars containing special exercises on the chemistry of agriculture, root crops, cotton, fruits, etc. A report on a *Secondary Course in Agronomy* is nearly ready for the printer. The field for work of this kind is almost unlimited. I am sorry that the funds of the office do not allow us to cultivate it more fully.

(4) The giving of aid to agricultural colleges and schools and to state and local school authorities along lines of agricultural education: This is our miscellaneous work—ever changing, ever new and interesting, each feature of it presenting a new problem to be solved by some method yet to be formulated. At one time it means a Christmas trip to California, a Thanksgiving trip to Virginia, or a midsummer trip to Lake Champlain to give an address or an illustrated lecture before a state convention of teachers; again it may mean a drive of one hundred and fifty miles over the dusty roads of Kansas to arouse enthusiasm for an agricultural school, or an April campaign in Maine snow-banks to stir up the normal schools on forestry, or a week's conference with school men in Georgia to formulate courses for a whole system of state

agricultural schools. A score or more of such trips have been taken during the past year.

It may consist of less spectacular but no less effective work in the office—correspondence, conferences, the sending out of lantern slides and other illustrative material, the preparation of special data for school officers or members of Congress. Last summer upon invitation we sent a young man, a teacher who had displayed special aptitude in teaching elementary agriculture, to Wisconsin, Pennsylvania, and Maryland for five weeks to give instruction in agriculture at teachers' institutes. We could have kept him constantly employed in this and similar useful work, but our funds would not allow it. We were compelled to furlough him for eight months to superintend the starting of a rural agricultural high school in Maryland. He is now with us again and will put in his whole time up to September 1, in teachers' institutes in Virginia, Maryland, New Jersey, Illinois, and Wisconsin. Then we shall have to let him go back to his school, where he will do excellent work, tho in a field much narrower than we could offer him if Congress were disposed to be more liberal with us in appropriating for the educational features of our work.

"Aye, there's the rub!" We find little difficulty in getting adequate appropriations to fight the cotton boll weevil or the browntail moth, or to engineer some irrigating project—anything with commercial interests back of it, but when we ask for $10,000 or $15,000 to aid in improving the minds of our children—to make the coming generations of farmers less dependent upon Congress for aid—there is none so valiant as to raise lance in our behalf.

Such in brief is the educational work of the national government so far as it has a bearing upon agriculture. Speaking more particularly for the Department of Agriculture, we find that there is a large demand for such assistance as we are able to give. We would like to increase our facilities and broaden our work, not to the extent of undertaking work which the states can just as well do for themselves—education is primarily a function of the state—but to the extent of co-operating more effectively with the different agencies concerned in the education of our youth—the state agricultural colleges, the normal schools, state and county superintendents of education, and teachers. The big problem of the immediate future, it seems to me, is to prepare teachers of agriculture. Until that problem is solved we shall have to be content with "hitting the high places"—introducing agriculture where favorable conditions prevail.

WHAT HAS BEEN DONE BY NORMAL SCHOOLS AND AGRICULTURAL COLLEGES FOR POPULAR EDUCATION IN AGRICULTURE

E. E. BALCOMB, DEPARTMENT OF AGRICULTURE AND PHYSICAL SCIENCE, WEATHERFORD, OKLA.

The reports from the various state normal schools and agricultural colleges of what they have done and are doing for popular education in agriculture has

proven very interesting reading to me. It shows that the educational ideal is now changing, that there is a sentiment to make agriculture the center of correlation. The manifested eager desire of men in both systems of education to be of real value to the people of our great commonwealth shows that our educators are not mere theoretical pedagogs, but real, live, practical, public-spirited men, working and planning to create true and active citizens. And it makes one rejoice that one is permitted to be even a small factor in this.

To secure definite, reliable, and live information upon this subject I mailed to the president of each agricultural college, each state normal school, and to certain other schools in the United States the following questions with a request to answer them in full for this report: (1) What has your school done, and (2) what is your school doing, for popular education in agriculture? (3) What work are you planning for the next two years? (4) What would you wish to have your school undertake if conditions were made favorable?

The questions were made thus general so that each school would certainly mention its own characteristic work. The last two questions while not called for in the subject assigned was the best means of bringing forth the attitude of educators upon the need and desirability of popular agricultural education.

Information was received from ninety-one state normal schools, with all the states but Florida, Arkansas, Kentucky, and Georgia represented. Over thirty reports from private normal schools and secondary schools offering agriculture were received, and I regret that lack of space prevents including a summary of their most successful work. The presidents of all state agricultural colleges except those of Alabama, Arkansas, Idaho, Louisiana, Michigan, and Vermont responded, making forty-two replies in all. This is an extremely good showing and altho not complete is certainly representative and indicates the attitude toward this subject in the United States.

As the one responsible for securing this information for the Association I heartily thank these more than busy men for their generous response. It means much to answer in full such questions and it is a further proof of the interest of these men in practical education. I regret that I cannot quote many of these letters in full. It would be an inspiration to you.

Of the ninety-one state normal schools from which information was received, seventy-five believe in instruction in agriculture, and are either giving it in some form or desire to do so. Of the sixteen not so expressing themselves, nine give good reasons, four give no reasons at all, and only three express themselves as questioning the course or as being opposed to it.

The fourteen not giving courses but desiring to do so make statements like this one from President Jones of Ypsilanti, Mich.:

> It is my fervent hope to place a professor of agriculture in charge of a department here who shall give his entire attention to the building-up of standards and ideas of agriculture in the minds of the children in the rural schools and to prepare teachers so that they may enforce such instruction.

Sixty-one state normal schools are now offering courses, or have made

definite plans for next year. Seven of these are giving only a little agriculture in connection with science courses, nature-study, and gardens but are looking toward something better. These are Emporia and Hays City, Kan.; Lock Haven and Bloomsburg, Pa.; Cortland and Fredonia, N. Y.; and Charleston, Ill. Eight others are doing still more in connection with school gardens and are planning on extending the work: Millersville and Philadelphia, Pa.; Winona, Minn.; Los Angeles, Cal.; Oswego, N. Y.; Johnson, Vt.; Greeley, Colo.; and Trenton, N. J. The remaining forty-six are teaching the principles of agriculture more definitely as such. Fourteen of these give an elementary course but indicate no special emphasis on the work: Huntsville, Tex.; Livingston and Troy, Ala.; Dillon, Mont.; River Falls, Superior, and Milwaukee, Wis.; Farmville, Glenville, and West Liberty, W. Va.; Alva, Okla.; San José, Cal.; Brockport, N. Y.; and New Haven, Conn. Ten others are emphasizing the work more: Shepherdstown and Huntington, W. Va.; Baltimore, Md., Castine, Me.; Plymouth, N. H.; Kalamazoo, Mich.; Bellingham, Wash.; Bridgewater, Mass.; Valley City, N. D., and Menomonie, Wis. Twenty-two others seem to be expending still more energy upon agriculture: Florence and Jacksonville, Ala.; Normal and Macomb, Ill.; Kirksville, Springfield, Cape Girardeau, and Warrensburg, Mo.; Kearney and Peru, Neb.; Whitewater and Stevens Point, Wis.; New Paltz and Rochester, N. Y.; State Normal School, No. 2, Washington, D. C.; Chico and San Diego, Cal.; Salt Lake City, Utah; Weatherford, Okla.; Rock Hill, S. C.; Spearfish, S. D.; Natchitoches, La. These last thirty reports, especially, are full of interesting material.

Rock Hill, S. C., has been giving the course for twelve years. A few schools have been offering the course for seven, six, and five years, but most of them have introduced it within the last few years. The length of the course varies from ten to thirty-six weeks, with a very strong feeling that there should be at least a twenty weeks' course required.

The courses vary in material presented and in methods of presentation. Some give the course in connection with the sciences, some as a part of nature-study, still others base the work on the school garden. Others base their work upon a text giving about the subject-matter outlined in Burkett, Stevens, and Hill, or in Goff and Mayne. Some schools are handicapped for lack of grounds, equipment, and teaching force. Others are blessed with garden plots and fields, nurseries, orchards, vineyards, and greenhouses, and some do dairying and poultry-raising. Many desire to have miniature farms and to do experimental work to demonstrate all phases of farm life, to raise crops and allow students to earn wages, etc. Macomb, Ill., has planned experimental crops in connection with the Illinois University which may be a very suggestive plan.

It is not the desire of the normal schools to compete with the agricultural colleges. As President McFarland of Valley City, N. D., says:

> I would not have this work compete, ... but it would show how the farming processes might be brought to the common schools.

And President Scudder of New Paltz, N. Y., says:

The aim being not to make expert agriculturists of our teachers in training but to interest them in the farming conditions of the country, making them intelligent about farm life in its various phases, and showing them how work can be carried on at the school to reflect the interests of the neighborhood, but still more how the children can be induced to do more careful and intelligent work at their homes, etc.

Certain schools are assisting and encouraging the teachers in the field. Weatherford, Okla., lectures at teachers' associations and institutes, giving public demonstrations of work that may be successfully carried on in the rural schools, outlines state reading circle courses, issues bulletins. Chico, Cal., has issued an excellent school garden bulletin. Salt Lake City, and Normal, Ill., publish most helpful material. Professor Upham of Whitewater, Wis., has an excellent outline study for elementary work. Cheney, Wash., is planning a bulletin. Natchitoches, La., is sending out a man to assist graduates in introducing agriculture into their schools.

Some work is done in addition to the preparation of teachers. Many schools report giving lessons directly to model school children. Natchitoches, La., reports garden plots for each of 295 children, with definite instruction. Rochester, N. Y., and Baltimore, Md., have done much city-work. The garden work thruout Washington, D. C., came from the influence of Normal School, No. 2. Normal, Ill., Warrensburg, Mo., and others improve back yards and encourage definite home planting. Kalamazoo, Mich., has a rural progress lecture course. Kearney, Neb., has organized corn contests. Weatherford, Okla., lectured at farmers' institutes and furnished articles for the press. We cannot say just what influence this had, but from some influence the proposed constitution has a clause requiring agriculture for the common schools. Spearfish, S. D., has seventy acres of land and has experimented with the best varieties of small fruits adapted to their climate, raising one year 60,000 quarts, putting up about 3,000 for dormitory use. The work was nearly all done by students. This encouraged fruit-growing in that section. This spring they distributed 1,000 poplars. President Cook has been successful and the experiment is interesting. It is a question for discussion whether all normal schools should undertake as much. New Paltz, N. Y., has held conferences in several of the country schools which adult members and teachers of several communities have attended. Sessions were held Saturday mornings and afternoons, the visitors bringing lunches. The aim was to arouse the people to the importance of manual training, domestic science, and agriculture. One talk was on fertilizers and the desirability of having experimental school garden plots. Another talk given by an expert fruit-grower of the neighborhood was on pruning, grafting, etc. The examples were finished with wax. The materials for making the wax, the oil stove, and other utensils were brought from the normal school. This illustration shows how very anxious some of the normal-school men are to be helpful and make education practical.

AGRICULTURAL COLLEGES

Nearly all agricultural colleges conduct or assist in farmers' institutes. In addition to this Oklahoma reports lectures at fairs and picnics; New York, Maryland, and New Hampshire at clubs and granges. Indiana maintains a lecturer and a dairy expert in the field. Kentucky, New Hampshire, Ohio, Nebraska, and South Carolina have sent out lecturers accompanying "good farming" trains. South Carolina reports these cars fitted with model dairies, model farms, horticultural exhibits showing methods in horticulture, and demonstrations and lectures in other departments. New Mexico proposes a traveling agricultural school which shall spend two or three weeks in each agricultural district. Nebraska has well-equipped trains. President Andrews says:

> They stop at each station for the twenty-five minute lecture on good seed and the way to tell it. The minute a train stops, one, two, or three cars are filled with farmers and farmers' boys eager to learn. A passenger car, one end fitted up with charts, pictures, samples, and a little platform, is an excellent classroom. As the whistle sounds, out go our pupils and the train sweeps forward to the next station on the program where the exercise is repeated.

Many colleges help in popularizing agriculture by offering short-term courses to farmers and young people of ten days, ten and twenty weeks, etc. Wisconsin's short-term students organized a club of 911 members. Mississippi reached 30,000 people last year thru farmers' institutes and had a round-up at the close of the season to bring the farmers into closer touch with experiment-station methods.

Ohio, Colorado, North Dakota, Kentucky have boys' and girls' produce and livestock contest clubs. Mississippi is planning for this. New York has organized study clubs and has encouraged children's exhibits at town, county, and state fairs. In Ohio the boys and girls clubs are organized in the rural schools. The boys study planting and experimenting with corn and other field crops, the girls a similar work in floriculture, gardening, and yard decoration. North Dakota is working thru the county superintendents and has eighteen out of forty counties. Professor Randlett who was detailed to this work exclusively gives an excellent report. Kentucky has distributed a large number of penny packets of garden seeds to the schools. They are planning corn-raising contests.

We find a number of colleges interested in introducing agriculture into the public schools in accordance with the following brief outline:

> New Hampshire is co-operating with the state superintendent; introducing agriculture into the common and secondary schools.
>
> Kansas, Pennsylvania, Florida, and New Mexico are lecturing to create a sentiment for it; Kansas has an assistant to the director detailed to this work.
>
> President Scott of Oklahoma urges consolidation of schools as the best means of popularizing agriculture.
>
> Massachusetts and Iowa have just elected men for organizing and directing and inspiring superintendents, principals, and teachers.

Colorado is planning to get a bill two years hence requiring elementary agriculture for public schools and more advanced for high schools. Five county high schools have courses.

Maryland is trying to come into close contact with the country school boards and teachers and is seeking to obtain appropriations for introducing agriculture into high schools.

President Bryan of Washington desires to see agriculture permeate common schools, not separate agricultural high schools, but agriculture in all the high schools.

Indiana is interesting the state board in agriculture for the public schools.

New Jersey is co-operating with the state board in planning a curriculum for agricultural courses in high schools and also in the establishment of summer courses for teachers.

Illinois has been developing and planning courses in agriculture for secondary-school work and for the country schools. Professor Bartow: "I believe agriculture in public schools will be supplemented and supervised by agricultural colleges thru supervisors who visit the schools."

Maine helps with gardens in some sections. She has a man engaged for next year who will spend his time helping teachers in their schools.

Montana is co-operating in establishing courses in high schools. Two have such courses and others are investigating.

Ohio is giving her attention to the public-school work. She has a superintendent of agricultural instruction who is interesting teachers. The work is proving very valuable. One-half of the townships are teaching agriculture in elementary grades. One-fifth of the high schools are giving it in science courses.

In Missouri, Professor Waters says, "We consider the introduction of agriculture in the primary and secondary schools the most important extension work in agriculture that can be undertaken." "To reach the country school we are arranging to hold a series of one-day meetings in every school of several counties, demonstrating and lecturing to pupils, teachers, and patrons."

California encourages agriculture in the schools. She has influenced the establishment of a secondary school of agriculture.

New York, as early as 1902 was actively engaged in several lines of activity, all bearing directly on agricultural education.

The colleges are assisting in preparing teachers for this work.

New York, Ohio, Illinois, Maine, and Maryland have provided lectures at teachers' institutes and associations. The Maine college faculty has lectures at state normal schools and are to assist in giving summer courses. The North Carolina college gives courses at three colored normal schools. Colleges supervising work have already been mentioned.

The following schools are offering summer courses: Illinois, offering two courses—one for high-school teachers and one for rural teachers; Utah, North Carolina, Connecticut, California, New Jersey, Mississippi, New York, and Missouri. Professor Waters, of Missouri regrets that their summer course does not reach rural schools since the work required by the college is for teachers in the better high schools. Rhode Island is planning courses.

Some of the colleges have regular courses for teachers. Illinois is training teachers for high- and normal-school positions; the course is taken by seniors and post graduates. North Dakota and Rhode Island have a department of agricultural education and are arranging a course for rural-school teachers. New Jersey is planning to arrange for a two-years' course. California, in connection with the university department of education, hopes to establish a department of agri-pedagogy. Mississippi has a department of industrial education preparing men to teach agriculture. Wyoming hopes to give

agricultural courses in connection with the teachers' college. New Hampshire leaves it to the normal schools. Connecticut gives a two-years' course to prepare for rural-school agriculture or to teach nature study in graded schools. New York, planning a regular normal department, already has a two-years' nature-study course. Maryland proposes to open a department. For Massachusetts, President Butterfield has planned an ideal department for preparation, organization, and supervision of teachers of agriculture. Iowa has just elected a man for a similar purpose.

Oklahoma and North Dakota have given correspondence courses. Maine and Illinois are prepared to do so.

In addition to the excellent experiment station bulletins which nearly all the colleges publish, certain colleges issue bulletins to assist teachers and pupils. Those reporting are Illinois, Washington, Colorado, Maryland, Utah, Missouri, Maine, Ohio, and New York. Ohio distributes 10,000 monthly. Cornell University has done by far the greatest work in popularizing agricultural education. To March, 1905, there were 446 junior naturalists' clubs with a membership of 13,525. The members of the clubs had written the college 20,000 letters. Over 25,000 persons were taking the reading courses. These bulletins for farmers, for farmers' wives, for children's and teachers' reading-circle courses are most excellent and are read the country over. Dr. Bailey has well shown what organization and good literature can do.

In this connection I wish to speak of the excellent leaflets on farm crops, farm animals, and horticulture, prepared especially for school use by men of the Illinois College. C. M. Parker, editor of the *School News*, Taylorville, Illinois, has assisted much in agricultural education by furnishing these leaflets at a penny per copy, and by publishing articles in the *School News*.

These reports show that the best and quickest means of disseminating agricultural education is thru the schools.

It has been impossible in this paper to do little more than to give cold facts. I should like to quote from the many excellent letters to give warmth and color to these facts, and make you feel the throbbing heart beats of this movement; make you feel the earnest, devoted, intelligent, progressive work by men and women of normal schools and colleges; make you realize the thousands and thousands of farmers and their families who have not only been benefited financially and interested in their vocation, but whose lives have been broadened and enlivened; make you realize the thousands of teachers who have been awakened to the educative and cultural material in the child's environment, who have been brought into closer sympathy with both parents and children, and have been inspired to educate the farm boys to master the problems of their lives; the hundreds of thousands of children who have been stimulated to observation and experimentation, and so made industrious, happy, contented, and progressive citizens.

What these schools have done is to blaze the trail for the great new practical education which is about to follow—the education in which the chief industries of our nation shall be the center of correlation.

AGRICULTURE, DOMESTIC ART, AND MANUAL TRAINING WITHOUT FUNDS OR EQUIPMENT

E. C. BISHOP, DEPUTY STATE SUPERINTENDENT OF SCHOOLS, LINCOLN, NEB.

In the encouragement of agricultural education thru the public schools, the particular phase of the subject with which I shall deal in this discussion is so interwoven with manual training and domestic art that in order to properly discuss the one, the other two must be included.

I am reminded of a prevailing tendency in discussions which seek to settle the rural-school problem. After the usual recital deploring the conditions as to inadequate equipment, poorly trained and poorly paid teachers, small, irregular attendance, lack of interest in the school, etc., we close by declaring that the only safe, sure, and lasting remedy is in the consolidation of rural schools. And it is true that the consolidation of rural schools has done and is doing the good we have expected.

Where are we short? Not in the encouragement of consolidation; but in the absence of consolidation we are neglecting the means which are at hand for the betterment of rural conditions. Lack of proper state legislation and the common conservatism, which hesitates to sacrifice the old for the new, prevent the early widespread establishment of consolidation. It is coming, slowly, surely. But it is not our part to look, wait, and work for consolidation to the exclusion of action which will not only bring us nearer to consolidation but which will in the meantime provide better things for the rural youth, who in great numbers, even in some of our most favored sections, will grow to maturity, to old age, and pass away before consolidation becomes general thruout the country.

If we are to perform any service which will bring general relief to the rural conditions in this generation, we must, while encouraging consolidation, do those other things which can now be done without consolidation. It is easy to sum up all the ills of the rural school, to gather together all the possibilities for good and then proclaim consolidation as the great healer and the great benefactor. In time, we shall have our reward for all the good thus accomplished. But greater shall be our reward if we follow our "thus should it be" with a "thus is it" and a "thus must it be." The one-room rural school is yet a strong factor in many sections and in many other sections it is a weak factor, yet it is the only present means thru which better things can be reached. While we hold strongly for the consolidated school, let us utilize the one-room rural school until it is evolved into something better.

In due time the consolidated school with its trained teachers and adequate equipment will educate in agriculture, manual training, and domestic art in a degree worthy of the long-continued effort necessary for its establishment. In the meantime we should do what we can without such facilities in organization and equipment. This brings me to my subject.

Discussion of education in agriculture, manual training, and domestic art has been confined largely to special schools of agriculture, manual training,

and home economics, or to high schools provided with special courses of study, and necessary facilities for carrying on the work. But these schools are so few, and for several decades will be so few, that while one rural youth attends such a school, scores of his neighbors go no farther with their education than that provided by the home school, where, from lack of proper facilities, education for the home life is neglected. The schools provided with agricultural laboratories, manual-training, and domestic-art equipment will continue to grow in favor and to increase in number. But for each one of such schools there are hundreds of rural, town, and city schools where this work, however much desired, is not introduced because of lack of what is considered necessary funds and equipment and teachers especially trained for the work.

As in the consolidated-school proposition, we can wait and watch and work for ideal conditions and thus aim to shift responsibility, but the better course is to work for ideal conditions and at the same time make the best use of real present-day conditions.

I am reminded of a teacher who taught the rural school over in Floyd County, Iowa, where, several years ago, I occupied a pupil's desk and cultivated my ambition to achieve greatness. She could not utter a single musical note but she cleared the way and gave the school an opportunity to sing. And she discovered and brought to light more hidden music than any former teacher ever knew existed in the souls of that score of country boys and girls. Singing-books, charts, instruments, and singing-teachers seem to be necessary adjuncts to prescribed courses in musical training, but soul music and heart expression should not remain bottled up because of a lack of these helpful agencies. Give the natural tendencies a chance to develop, then the need for devices and means for full development will be felt and proper provision made for supplying them.

Since the one-room rural school must for yet many years play an important part in the education of the people of rural communities; and since it must be the rural school and its co-operative agencies thru which a desire for better things can be created and where that desire will lead to action that will secure better things, our part is to bring to the rural school those influences which will reach into present actual conditions, do good along the way, and lead to better things.

So long as the people are led to, or are permitted to, cling tenaciously to the three R's to the exclusion of other educative influences, the rural school in its old form, will remain in the background of modern development. The rural community can and will have as good a school as it wants. The spiritualization of the rural school has its beginning in the changing of the attitude of the people toward their need. To see the way to supply such need is not only the battle begun, but the battle won.

The teaching of agriculture in rural schools has not brought the results hoped for and confidently expected. There are two strong general reasons for this. First, too many farmers do not feel the need of such instruc-

tion; second, too many teachers are not prepared to properly teach agriculture.

A teacher properly supplied with knowledge, and the power of right application can in one year make the study of agriculture the most popular educational work in the community. Another teacher can in less than one year, by attempting to teach agriculture, cause it to become unappreciated as an educative force, unpopular as a subject, and despised as a task.

The unsuccessful teacher of agriculture generally makes one or more of the following mistakes:

1. He fails to have the pupil and the patron approach the subject with the proper kind and degree of interest.

2. He fails to begin to teach and to continue to teach in proper order, the right subdivisions of the subject as applied to the community.

3. His lack of knowledge of the subject or of skill in its presentation invite confusion and failure.

4. He fails to utilize the means at hand for doing the things that can be done in the particular locality at the particular time.

What I have said and shall say applies as forcibly to domestic art and to manual training as to agriculture, and recognizes general conditions, the conditions which must be considered in a general discussion of the subject.

Since the farmer is not interested in agricultural education we must awaken such interest, tho it is not always necessary to call such effort agricultural education, a term sometimes not popular with some people. Since teachers are not properly prepared to teach agriculture, we must take the teachers as they are and help them to do the things which they can do. Since teachers and members of the community fail to utilize the means at hand for doing things that can be done, we must help the teachers and help the community to see and to do.

For reasons already mentioned, agriculture, domestic art, and manual training have not become generally established as recognized parts of public-school work. Special schools of agriculture, home economics, and manual training, as now existing in university, college, and high-school organizations, have, within their respective fields, done a good work. Well-equipped departments in one or more of these arts are in successful operation in some high schools, some grade schools, and in some private schools. But such schools are too few, too little known, and too distant from the people whom they should serve. To reach more than a very small percentage of our young people we must in a measure bring these schools into the home if we would reach the great mass of the people.

Any new agency for doing good must show its power for good before it will be accepted and supported by the public. If we wait for Congress, for state legislatures, and for boards of education to make appropriations and provide the means for doing this work where there is greatest need for it to be done, this generation shall pass away without seeing much accomplished. In this democratic country of ours, before legislative bodies take action and before

boards of education establish changes in courses of study and equipment for carrying out such courses, there must come a desire from the homes of the people for action.

Let us first enter the home. We must bring these industrial schools into the home if we would reach the people and thru them establish public measures. Our young people are the entering wedge to the home. When we cannot lead the father and mother we can sometimes lead the child, who in turn leads the father and mother. Measures which lead the boy and girl to a keener interest in the home, to a better appreciation of home life, and to the cultivation of a greater degree of individual efficiency as a factor in the home and in the community life—these are educative in the highest sense and represent a necessary part in the proper development of the civic, moral, and industrial life of the nation.

The boy who carefully cultivates and studies the growth of a patch of corn, sugar beets, potatoes, wheat, or other plant will gain a new interest and a better appreciation of the value of careful thought applied in the study of seed selection, soil fertility, and the intelligent culture of plants. Further, he will become interested in the best methods of marketing, and of the use of these plants as food for man and animal. This will direct him to study, to discussion, and to investigation, leading to a knowledge of systematic feeding and caring for live stock, to a study of animal adaptation and needs, and to a careful consideration of the financial and social problems involved. This is education.

The girl who learns by actual experience to successfully cultivate one flower, one vegetable; who learns to bake a loaf of bread, to prepare an edible dish for the table, to can a jar of fruit, to make an apron for the use of herself or a member of the family, to neatly darn or patch a garment—if she seeks to know and to perform these simple yet important duties the best way, combining with her work cheerfulness, careful thought, and intelligent study—is being educated.

The homes of which such boys and girls are members and the communities in which such homes are located will soon demand for all of the young people that kind of training which has been shown by actual demonstration to be truly educative.

The problem stated is this: Without funds, equipment, or sufficient state or community interest, what method of procedure will bring about the necessary interest in these lines of industrial education and what action will lead to measures which will provide the necessary funds and equipment for giving this work its proper place in the public schools?

The introduction to this paper is concluded. The introduction includes most of what I have to say.

The Bancroft Plan.—The Bancroft school is an eighth-grade ward school of Lincoln, Nebraska. Courses in cooking and in manual training have been maintained for the past four years in some of the ward schools of Lincoln. In schools where such courses were established, efficient teachers and proper equipment have been provided for doing

the work in a most satisfactory manner. As the funds and inclinations of the board of education have permitted, these courses were extended to different ward schools. The Bancroft school is so situated and equipped with building facilities that the day seemed far distant when cooking and manual training departments could be added. The school grounds were too limited in extent to permit school gardening. Miss E. Ruth Pyrtle, principal of the school, had faith in the virtue of training in domestic art, manual training, and elementary agriculture.

The Bancroft school building stands between the North Western and Burlington railway tracks on the west and north, the University of Nebraska on the east, and the crowded city on the south. The pupils come from homes as varied as the character of the surroundings indicate. There was no extra room, no funds, and no equipment for this work.

Work began in agriculture. In the study of seeds and of plants the pupils in all grades were led to a desire to know, by seeing and doing, the wonderful processes of germination, leaf and stalk development, budding, blooming, and ripening of the seed. A local seed firm sold, by request, small packages of flower and vegetable seeds for one cent each. Each pupil purchased such seed as he desired, spaded up his own back yard or front yard or neighboring vacant plot, planted his seed, cultivated his plants, watched their development, reported results, brought samples of flowers or vegetables to his teacher, and escorted his teacher and other visitors out to his little experimental plot when occasion permitted.

The work in folding, paper cutting, sewing, molding, and water color in the primary grades, evolved into needle-work, in making the simpler forms of wearing apparel and house ornament, by the girls, and in whittling out models of ladders, swings, tables, and chairs, in the making of broom-holders, towel racks, coat-hangers, knife boxes, pencil-holders, match safes, spice boxes, and other articles for the home, schoolroom, or business desk.

This work was done at home with whatever tools or equipment the pupil could secure. Results were brought to school and showed to teacher and schoolmates. Originality and skillful workmanship were encouraged.

The eighth grade had lessons in cooking. Once each week a recipe was written on the board or read to the pupils, who copied it. These recipes were secured from the School of Domestic Science at the University. The teacher first tried the recipe and presented only what she had proven with her own hands to be practical with the beginner in cooking. During the week each pupil, unaided, in his own home, cooked the article, as many times as desired, and reported, with sample of cooking when practical, at the regular time of the lesson the following week when free discussion was participated in by all members of the class. The cooking was done on stoves with fuel of gas, coal, wood, cobs, or trash, and with utensils varying from the most simple and undesirable to the most expensive and best adapted cooking-vessel. These varied conditions brought experiences interesting to hear and profitable to know.

Before the close of school in the spring, patrons' day was observed. A part of the forenoon was spent in placing on the walls and on the seats across which boards had been laid, specimens of the work in each room. This included the various kinds of regular schoolwork and results of work in the industrial lines before mentioned.

In the afternoon the pupils of each room, in charge of their respective teachers, passed thru the various rooms viewing the work of the other grades. Patrons were permitted to examine any of the work in any of the rooms at their leisure. While the results in the regular schoolwork attracted the usual attention, it was the work in cooking, sewing, and manual training that excited the greater interest and attention of the visitors.

At the noon hour a temporary table was arranged in one of the primary rooms and the eighth grade served luncheon to their teachers and some invited guests, the cooking and serving being done entirely by members of the eighth grade. Even the boys were proud to have a hand in it. The lessons given in cooking had not been restricted to girls.

This briefly is the plan of the Bancroft school. From this crude beginning the work in these three lines has been systematized, and teachers, pupils, and patrons have become more confident in the possibility of getting good results without the use of expensive equipment and means other than their own resources; homes have been reached; the school children appreciate the opportunities they have; the patrons recognize the value of the work and feel that between the school and the home there is a relation which if properly sustained will make better homes, better schools, and better citizens.

The Crete plan.—Crete is a prosperous little town of 3,000 inhabitants in a fertile agricultural section of Nebraska. Superintendent G. A. Gregory has faith in industrial training as a healthful auxiliary to the regular schoolwork. One corner of a basement-room was cleared out, some common wood-working tools secured and the Crete school boys were given a chance to learn to do things. They were encouraged to establish work-shops at home, make use of the old saw, chisel, plane, and hammer, and provide necessary articles for use or ornament about the home. The boys liked it. The patrons began to like it.

But there were the high-school girls crowding their heads with schoolbook lore, and neglecting training of the hand, the eye, and the sense of weight, size, and condition. There was no unused room that could be cleared and fitted for a cooking-class. There were no funds for providing equipment or teacher. But something must be done. Mrs. Gregory is a good cook. She became interested. Another lady who belongs to a prominent family of the town and who is likewise a good cook, became interested. A few other ladies from the best families in Crete joined the little circle and Superintendent Gregory's plan was put on an operating basis.

Each lady volunteered her services and her kitchen once a week. Not to exceed ten girls gathered at each of these homes under charge of the volunteer, free service, home teacher and demonstrator and took a lesson in cooking. At one place it was bread; at another, soups; at another, gravies; at another cookies, etc. The school girls watched operations, asked questions, made notes, went home, and during the following week tried their hands at making the specified article, and when successful, reported and showed results to the home teacher who now became the judge as to whether the proper degree of proficiency had been acquired. The girls who attended the bread-making demonstration one week were invited to pass on to another division the following week until the complete rounds were made once, and oftener if necessary.

This was a volunteer course not only on the part of the teachers but on the part of the pupils. The second and third years found all high-school girls enlisted in the work. The cooking-course has now been added to the high-school curriculum. The following conditions prevail:

1. Any high-school girl may take the work any year or years from freshman to senior inclusive.

2. The work when completed is counted as a regular high-school credit.

3. The teacher of each special division and one other member of the teachers' club are judges who decide when satisfactory results have been attained in each respective division.

4. No fixed time is set for the completion of the work by any student. Ability to show satisfactory results in each division of the work is the measure of work completed. In the making of bread the pupil is required to bring to the judges samples of her work in each of the different kinds of bread required to be made. In the division of pies the pupil is required to submit samples of one- and two-crust pies. In the cooking of meats the pupil is required to bring to the judge samples of meat cooked as required and also to show evidence of her ability to select meats and to properly serve them. This applies in other

divisions of the work. On the completion of the twenty different divisions of work outlined in the course, the pupil is given high-school credit for the same.

In agriculture the work is likewise homework. Each pupil from the first grade up is encouraged to become acquainted with the growth of plant and animal life. Each pupil is encouraged to learn to do something worth being done, to learn to do the thing which his surroundings permit, and learn to do well whatever he undertakes.

Three years ago last spring before the closing of the school year superintendent Gregory and his teachers left with pupils of the school the feeling that during the summer vacation it would be well for each one to learn to do with his own hands something worth being done. In the fall after the opening of school, on inquiry by the teachers, it was learned that nearly all the pupils had accomplished something. Some had raised flowers, some vegetables; some of those living in the country had cultivated quite extensive plots of ground; some had raised and cared for different kinds of animals as pets; some had learned to sew, to cook, to can fruit, to make articles for use about the home and to make models of various kinds, such as bridges, houses, ladders, wheelbarrows, and other articles which appeal to a boy.

In order that the pupils might each see what the other had accomplished and that teachers and patrons might see what had been done, one Friday afternoon was set apart for an industrial exhibition. School was dismissed in all the grades. The lower rooms in the central school building were prepared for exhibiting by placing boards across lengthwise on the rows of seats and the walls were utilized for hanging exhibits of sewing. The children were asked to bring any article they had made or any pet they had raised during the summer. No prizes were offered. Entry cards were provided. Each article bore the name of the maker. One room was set aside for vegetables, one for flowers, one for sewing and manual training, one for cooking. The pets were brought in boxes of various sizes with wire or wire screen fronts and were arranged on benches strung around the outside of the school building. One spotted calf raised by a girl and a two-thirds grown lamb raised by a boy, were tied to the school-yard fence. The pets included chickens, ducks, geese, guineas, pigeons, rabbits, white rats, kittens, puppies, canary birds, pet pigs, and one twelve-year-old girl exhibited her baby sister as the pet which had occupied her time all summer. The cooking included several kinds of bread, cake, pies, cookies, candies, canned fruits, and other household articles; sewing included aprons, sofa-pillow covers, dusting caps, various articles of ordinary wear and house ornaments. The manual-training work included coat hangers, sleeve boards, broom-holders, match boxes, knife-holders, pen-holders, boxes of various descriptions, chairs, jardiniere stands, stools, wheelbarrows, ladders, and models of various kinds. One boy exhibited a home-made engine with a coal car and coach attached. Among the vegetable exhibits were every common vegetable and several exhibits of peanuts. The flower department contained exhibits of potted plants and bouquets grown in the homes and gardens of the pupils.

No awards were made, each pupil getting his reward in the satisfaction of

knowing that he had accomplished something, that what he had done was worthy of the interest of others and that he had gained the ability to do something worth doing.

This industrial exhibition was repeated the next two years, continuing to grow in interest. The last year the exhibit was made in the high-school building where electric lights were available and the exhibit was open during the afternoon and evening thus giving business men a chance to view the exhibit. At nine o'clock in the evening a brief program of music and addresses was held in the high-school auditorium. The people of Crete are now asking why they cannot have an up-to-date manual-training and home-economic department in their public schools. The way is easy now.

The Bradshaw plan.—In the village of Bradshaw, where a ten-grade, four-room school is maintained, the high-school and grammar-school girls organized a domestic-science club under the direction of one of the teachers. They met once a week outside of school hours. Their first work was sewing. They got an instruction book and studied out what they wished to try first; all worked at the same thing and brought results to the next meeting. They made articles of clothing for themselves and for members of their family. They made raffia hats which they themselves delighted to wear during the summer. The boys of the high-school and grammar-school grades organized an agricultural club, had regular meetings at stated times, on which occasions some members read papers or gave demonstrations concerning the subjects in which they had become interested. Sometimes the work included study of one of the different breeds of sheep, cattle, horses, hogs, or poultry; at other times, corn, potatoes, alfalfa, sugar beets, peanuts, or some other article in the grain or vegetable line received attention. The primary grades had a school and home improvement club, under the direction of the two primary-grade teachers. This club in the spring time secured the use of some vacant lots on which they raised flowers and vegetables. Nearly all members of each of the three above-mentioned clubs had home gardens in which they cultivated flowers and vegetables.

The Pawnee plan.—District No. 20, the Lower West Branch School, is a rural school in Pawnee County eight miles southwest of Pawnee City. From twenty to twenty-five pupils are enrolled and a class of from one to four pupils graduate from the eighth grade each year. The school building is the ordinary box-car form but kept in good repair. The school children collected stones and made borders for flower beds in front and at one side of the building. They also trained vines over the outbuildings and maintained a small experimental garden. At intermission periods the teachers and pupils talked over plans by which they might learn to cook and to sew, to make various articles, and to cultivate certain plants. Recipes were sought and distributed, each girl experimenting in her own home. Results were reported at their little informal meetings, and when desired, samples were submitted. In this way the girls learned to make bread and other common articles of diet, to can fruit, to sew, and to cultivate flowers and vegetables. The boys took especial interest in corn- and potato-growing and other agricultural lines that especially appealed to the individual. At the county corn contests and at the state contests this school is always represented by creditable exhibits in the various lines of work and by delegates sent by the school to attend the meeting. The teacher, Miss Lulu Wolford, was re-employed each year at an advanced salary. Her school ranks among the very best in the county and in the state in the quality of work done in the regular branches. The community has been much benefited in the interest taken by the young people in the work of the home. The school had been much benefited by the interest awakened among the patrons of the school.

The examples just cited give the work done in these particular city, town,

village, and country schools. These results have been repeated in other schools and in other states. I am led to believe that the results gained are in some instances better than results in this same work where funds, equipment, and trained teachers are provided for carrying on the work as an organized part of the school course. The work has this virtue: A child learns to make the best use of his opportunity; he learns that efficiency is the aim and that individual effort wins. In all the above-mentioned instances the work has been encouraged by the existence of the school district, the county, and the state organizations of boys and girls, which have for their purpose the development of individual efficiency; the object being to provide suggestion and direction rather than instruction.

Departments of manual training and cooking have recently been established in the high schools at York and Geneva as a direct result of the interest taken in the work of the county and state boys' and girls' associations. In other localities, both rural and urban, thru the activity of the young people, the communities have been led to a higher appreciation of the value of education in agriculture, home economics, and manual training as encouraged by our 8,000 active members scattered over the state.

Agricultural and domestic science clubs thruout the United States are doing this same work of spreading the inspiration that comes from individual effort along lines of activity that bring the school, the home, and the community into closer communion and recognize the necessity of all-around development.

Referring again to the thought suggested at the beginning of this paper in the discussion on the consolidation of schools, let us make application to the subject under discussion. Insomuch as we should make the best possible use of the one-room rural school in our work of evolution toward the consolidated school, so is it necessary to make use of the facilities at hand if within the present generation we see the establishment of the work in agriculture, manual training, and domestic science in our schools where most needed. The extension work in agriculture and home economics which is being rapidly developed now by many of our leading universities; the organizations of boys and girls working thru the public-school system; the reading courses made popular because of their adaptation to the real conditions as found in the homes of the people; the traveling schools of agriculture, which may later bring traveling schools of home economics; all these movements which stimulate the activity of our young people in a simple, earnest, effective way are doing more for creating a proper degree of respect for industrial efficiency; are helping more to dignify the calling of the farmer and the home-maker than are textbooks, lectures, special schools, and other of the more dignified methods we have been using, yet in which we feel the need of a more effective means of reaching the home and of extending the work.

Necrology

From May, 1907, to January 1, 1908

Reports of the death of the following-named life and active members have been received since May, 1907; the date of decease follows each name.

Oliver Cromwell Arey (December, 1907)	Brooklyn, N. Y.
Clarence D. Baker (December 14, 1906)	Des Moines, Iowa
George S. Beane (October, 1907)	Los Angeles, Cal.
Sarah F. Buckelew (April 27, 1907)	Brooklyn, N. Y.
Howard Champlin (June 2, 1907)	Cincinnati, Ohio
Ezekiel Hanson Cook (November 8, 1907)	Philadelphia, Pa.
J. B. Cunningham (November 11, 1907)	Birmingham, Ala.
Edward C. Delano (June 8, 1907)	Chicago, Ill.
Z. C. Ebaugh (April 1, 1907)	Reisterstown, Md.
S. L. Frogge (August 2, 1907)	Greenville, Ky.
Enoch A. Gastman (August 3, 1907)	Decatur, Ill.
Rufus Henry Halsey (July 25, 1907)	Oshkosh, Wis.
G. R. Hamman (April 24, 1907)	Fort Worth, Texas
Charles Herbert Harrington (July 21, 1907)	Buda, Ill.
John S. Locke (December 5, 1907)	Saco, Me.
C. E. Mann (June 30, 1907)	Batavia, Ill.
Fred B. Maxwell (November 6, 1907)	Oak Park, Ill.
Nathan J. Morrison (April 12, 1907)	Wichita, Kans.
William H. Payne (June 18, 1907)	Ann Arbor, Mich.
Wm. F. Phelps (August 22, 1907)	St. Paul, Minn.
B. P. Snow (February 13, 1907)	Alfred, Me.
Evelina Williams (July 3, 1907)	New York, N. Y.
Philo Jesse Williams (March 21, 1907)	Everett, Mass.
	Total 23

ACTIVE MEMBERSHIP

IN THE

NATIONAL EDUCATION ASSOCIATION

CLASSIFIED BY STATES

FOR THE YEAR 1907 TO JANUARY 11, 1908

LOS ANGELES MEETING

	Life Directors	Life Members	Former Active	New Active	Total Active	Associate	Total Membership
Totals	28	116	4,543	358	5,044	12,280	17,324
North Atlantic Division	10	20	1,882	73	1,985	637	2,622
South Atlantic Division	3	7	264	12	286	35	321
South Central Division	1	3	274	14	292	821	1,113
North Central Division	11	73	1,696	107	1,887	2,850	4,737
Western Division	3	13	367	149	532	7,879	8,411
Dependencies	...	...	26	2	29	7	35
Foreign (incl. Corres. Members)	...	...	34	...	34	51	85
North Atlantic Division—							
Maine	...	1	27	4	32	8	40
New Hampshire	...	1	26	3	30	8	38
Vermont	...	...	22	8	30	1	31
Massachusetts	1	2	323	6	332	116	448
Rhode Island	1	...	31	...	32	4	36
Connecticut	...	1	53	4	58	10	68
New York	4	7	917	20	948	240	1,188
New Jersey	1	4	187	6	198	25	223
Pennsylvania	3	4	296	22	325	225	550
South Atlantic Division—							
Delaware	...	...	9	...	9	2	11
Maryland	...	1	53	1	55	5	60
District of Columbia	2	4	40	1	47	11	58
Virginia	...	...	37	3	40	1	41
West Virginia	1	...	22	1	24	6	30
North Carolina	...	1	22	...	23	2	25
South Carolina	...	1	19	2	22	3	25
Georgia	...	...	46	4	50	4	54
Florida	...	...	16	...	16	1	17
South Central Division—							
Kentucky	...	1	57	2	60	27	87
Tennessee	1	...	29	1	31	48	79
Alabama	...	...	52	3	55	22	77
Mississippi	...	...	15	1	16	23	39
Louisiana	...	...	40	2	42	80	122
Texas	...	...	46	2	48	453	501
Arkansas	...	...	15	2	17	77	94
Oklahoma	...	2	20	1	23	91	114
North Central Division—							
Ohio	1	14	312	22	349	216	565
Indiana	...	1	116	11	128	124	252
Illinois	5	3	404	8	420	729	1,149
Michigan	2	...	136	1	139	154	293
Wisconsin	...	31	123	6	160	129	289
Iowa	...	2	86	5	93	288	381
Minnesota	...	1	117	27	145	149	294
Missouri	2	1	202	11	216	449	665
North Dakota	...	...	42	...	42	53	95
South Dakota	...	...	36	4	40	68	108
Nebraska	...	1	64	6	71	207	278
Kansas	1	19	58	6	84	284	368
Western Division—							
Montana	...	...	18	3	21	62	83
Wyoming	...	...	12	...	12	33	45
Colorado	1	2	68	4	75	240	315
New Mexico	...	...	11	2	13	137	150
Arizona	...	...	14	6	20	568	588
Utah	...	...	20	10	30	362	392
Nevada	...	...	2	2	4	121	125
Idaho	...	...	15	6	21	37	58
Washington	...	...	59	9	68	92	160
Oregon	1	...	13	5	19	92	111
California	1	11	135	102	249	6,135	6,384
Dependencies	...	...	26	2	28	7	35
Foreign (including Corres. Members)	...	...	...	...	34	51	85

RECORD OF TOTAL MEMBERSHIP BY STATES

IN THE

NATIONAL EDUCATION ASSOCIATION

FOR EACH YEAR FROM 1895–1907, INCLUSIVE

Heavier numbers show membership from the state in which the meeting of the year was held.
No meeting was held in 1906. The record is for the Active (permanent) Members for that year.

STATE OR TERRITORY	Denver	Buffalo	Milwaukee	Washington	Los Angeles	Charleston	Detroit	Minneapolis	Boston	St. Louis	Asbury Park and Ocean Grove	(No meeting)	Fifteenth Anniversary—Los Angeles
	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907
Totals	11,297	9,072	7,107	10,532	13 656	4,640	10,182	10,355	34,983	8,108	23,642	5,168	17,324
N. Atlantic Div.	1,462	2,940	942	1,492	1,877	783	1,309	1,556	14,163	1,640	11,156	2,097	2,621
S. Atlantic Div.	289	237	172	1,146	361	1,177	473	363	1,845	388	780	293	321
S. Central Div.	899	419	304	1,587	818	414	768	301	1,954	507	1,306	307	1,113
N. Central Div.	7,211	5,083	5,314	5,882	5,074	1,903	6,891	7,532	15,618	4,940	9,647	1,974	4,737
Western Div.	1,403	377	362	411	5,475	344	686	481	937	545	654	406	8,411
Colonies	.....	.....	.....	1	12	13	16	17	25	21	32	26	36
Foreign	33	16	13	13	39	6	39	105	441	67	67	65	85
N. Atlantic Div.													
Maine	24	7	7	10	16	12	13	32	677	47	32	31	40
N. H.	27	8	6	6	14	5	7	26	432	30	33	29	38
Vermont	13	14	15	11	11	8	21	25	189	29	25	22	31
Mass.	191	197	159	159	294	139	196	281	**7,459**	405	414	340	448
R. I.	55	35	23	36	50	18	23	28	335	38	56	33	36
Conn.	26	43	24	31	46	24	41	68	315	71	103	58	68
New York	521	**2,132**	411	509	756	327	512	595	2,323	700	8,132	1,048	1,188
New Jersey	168	179	110	172	154	93	173	116	408	111	**1,504**	211	223
Pennsylvania	437	325	187	558	536	157	323	385	2,025	209	857	325	550
S. Atlantic Div.													
Delaware	17	11	8	9	9	4	7	13	47	8	24	9	11
Maryland	53	23	31	80	50	81	76	62	313	57	129	58	60
Dis. of Col.	47	29	57	**382**	99	57	137	97	508	51	93	47	58
Virginia	36	21	10	63	22	38	22	27	186	37	60	34	41
West Virginia	49	52	16	129	29	18	56	28	137	39	38	23	30
N. Carolina	5	14	4	76	27	72	29	33	131	35	79	26	25
S. Carolina	1	31	7	92	22	**691**	30	25	98	24	66	22	25
Georgia	62	43	30	261	87	145	77	43	363	90	241	52	54
Florida	19	13	9	54	16	71	39	35	62	47	50	22	17
S. Central Div.													
Kentucky	176	77	98	408	136	68	215	73	521	74	349	64	87
Tennessee	66	57	25	248	113	96	108	37	402	45	269	35	79
Alabama	41	59	25	229	69	74	35	52	231	74	179	60	77
Mississippi	49	25	19	100	65	27	20	15	145	**93**	70	15	39
Louisiana	108	25	42	146	60	26	46	41	210	41	135	43	122
Texas	294	99	41	257	221	55	148	26	229	76	131	51	501
Arkansas	84	63	41	132	96	46	116	28	114	37	66	15	94
Oklahoma	58	14	11	60	47	21	71	17	55	39	42	15	114
Ind. Ter.	23	.....	2	7	11	1	9	12	47	28	65	9	
N. Central Div.													
Ohio	592	565	357	1,313	580	286	753	486	2,653	393	1,744	345	565
Indiana	321	250	205	591	354	173	357	261	1,086	194	701	128	252
Illinois	1,495	1,174	785	1,340	1,216	557	1,142	1,247	4,013	939	3,105	473	1,149
Michigan	204	589	327	379	196	110	**2,193**	372	1,383	190	579	151	293
Wisconsin	188	413	**1,870**	361	287	187	293	677	1,078	195	611	168	289
Iowa	1,086	578	543	383	593	82	444	801	1,176	189	392	101	381
Minnesota	193	303	333	164	267	121	382	**2,498**	1,111	199	263	130	294
Missouri	1,113	406	285	795	673	166	415	187	1,471	2,299	1,558	237	665
N. Dakota	28	34	53	26	38	16	98	308	161	48	47	46	95
S. Dakota	78	83	118	45	86	30	141	390	271	70	79	39	108
Nebraska	742	363	251	103	331	86	325	196	707	103	357	70	278
Kansas	1,171	325	187	382	453	89	348	109	508	121	211	86	368
Western Div.													
Montana	15	43	78	20	70	24	88	60	82	42	46	20	83
Wyoming	48	7	10	8	13	7	15	10	26	12	18	16	45
Colorado	**1,136**	177	145	196	465	65	118	74	305	130	213	83	315
New Mexico	26	16	21	27	90	18	31	15	26	27	20	14	150
Arizona	11	6	6	21	158	19	34	22	24	20	15	15	588
Utah	89	37	22	25	106	8	32	25	55	31	35	25	302
Nevada	2	5	3	2	49	3	6	7	7	2	8	4	125
Idaho	3	10	6	3	32	11	19	13	27	26	15	14	58
Washington	6	16	8	12	56	20	81	71	108	95	74	58	160
Oregon	14	9	7	10	79	13	45	27	26	14	14	14	111
California	53	51	56	87	**4,357**	156	217	157	251	146	196	143	**6 384**
Dependencies	.....	.....	.....	1	12	13	16	17	25	21	32	26	35
Foreign	33	16	13	13	39	6	39	105	441	67	67	65	85

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IRWIN SHEPARD, *Secretary* N. E. A.,
Winona, Minn.

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